



**INTERRELATIONSHIP BETWEEN WORK CALLING
ORIENTATION, WORK ENGAGEMENT AND BURNOUT
AMONG NURSES IN THE NAMIBIAN HEALTH CARE
SECTOR**

by

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submitted in accordance with the requirements
for the degree of

DOCTOR OF COMMERCE

in the subject

BUSINESS MANAGEMENT

at the

UNIVERSITY OF SOUTH AFRICA

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February 2020

DECLARATION

I, Lydiah Wambui, student number 55773753, declare that this thesis entitled “INTERRELATIONSHIP BETWEEN WORK CALLING ORIENTATION, WORK ENGAGEMENT AND BURNOUT AMONG NURSES IN THE NAMIBIAN HEALTH CARE SECTOR” is my own original work, and that all the sources that I have used or have quoted from have been indicated and acknowledged by means of complete references. It has not been previously submitted either in part or in whole for any other degree or examination at this or any other university.

I further declare that ethical clearance to conduct the research has been obtained from the Department of Human Resources Management, University of South Africa. I took great care in ensuring that I adhere to the ethical obligations and principles of research ethics as prescribed by the UNISA Code of Ethics and Conduct during all phases of the research process.

SIGNATURE

DATE

ACKNOWLEDGEMENTS

I exalt the Lord God Almighty for grace, strength, insight and favour, especially when I wanted to give up.

I would like to express my sincere appreciation to the following persons:

- My supervisor, Professor Adele Bezuidenhout – thank you for your patience and insightful feedback.
- To my family, Angela, Eric, Pete, Njeri, Wanjiru and Gatheru, for cheering me on throughout this journey. Be encouraged that all things are possible with God.
- To my friends, in particular, Dr Perien Boer-Zide, Maurice Zide, Asalina Mamuno and Sandra Tjiramanga, and to my colleagues for your support and encouragement.

He who began a good work in us will bring it to a completion.

DEDICATION

This thesis is dedicated to God Almighty for He is great in battle and great in understanding.

It is also dedicated to my late parents, Rachel Waithira and Jeremiah Kamau, for believing in me and seeing the Hand of God in my life.

ABSTRACT/ SUMMARY

INTERRELATIONSHIP BETWEEN WORK CALLING ORIENTATION, WORK ENGAGEMENT AND BURNOUT AMONG NURSES IN THE NAMIBIAN HEALTH CARE SECTOR

by

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Abstract

This research investigated work as a calling, the relationship with work engagement and the effect on burnout in the Namibian health care sector. A quantitative survey was conducted on a convenient sample of nurses (N = 261) employed by government and private hospitals in Namibia. Kendall's tau_b correlation analysis indicated a positive correlation between job/calling orientation and total work engagement, and a negative correlation with the burnout sub-dimensions of exhaustion and cynicism/ depersonalisation. The results of this study also suggest that both job/calling and work engagement are statistically related to the respondents' positive world view, which is an important attribute for quality of life. Additionally, the study revealed that burnout had a partial mediation effect on the interaction between job/calling and work engagement. Selected demographic characteristics had a partial moderation effect on the relationship between job/calling orientation, work engagement and burnout.

These findings may provide new knowledge for the design of workplace practices that assess calling orientation, and may enhance work engagement. The study provided a deepened understanding of the interrelationships between work as a calling, work engagement and burnout. On a practical level, the recommendations provided can be used by human resource management practitioners, nurse managers and health care providers to motivate health care workers to become more productive in the provision

of quality health care, and to improve the management of employees throughout their employment life cycle.

KEY TERMS:

Burnout, Conservation of resources theory, Health care, Job crafting, Job demands, Job resources, Meaningfulness, Nurses, Passion, Personality, Self-determination theory, Self-regulation theory, Social identity theory, Work calling orientation, Work engagement

Afrikaans version

Opsomming

In hierdie studie is werk as 'n roeping en die verband tussen werkverbintenis en die uitwerking van ooreising in die Namibiese gesondheidsorgsektor ondersoek. 'n Kwantitatiewe opname is onder 'n geriefsteekproef van verpleegsters (N = 261) by private en staatshospitale in Namibië gedoen. Volgens Kendall se tau_b-korrelasieanalise is daar 'n positiewe korrelasie tussen pos/roepingsgerigtheid en totale werkverbintenis, en 'n negatiewe korrelasie met die ooreisingsubdimensies van uitputting en sinisme/ontpersoonliking. Die uitslag van hierdie studie dui daarop dat sowel pos/roeping as werkverbintenis statisties met die respondente se positiewe wêreldbeskouing, 'n belangrike kenmerk vir lewenskwaliteit, verband hou. Afgesien hiervan dui die uitslag daarop dat ooreising 'n gedeeltelike mediasie-effek op die wisselwerking tussen pos/roeping en werkverbintenis het. Die gekose demografiese kenmerke het 'n gedeeltelik matigende effek op die verband tussen pos/roepingsgerigtheid, werkverbintenis en ooreising.

Hierdie bevindings is nuwe kennis vir die ontwerp van werkplekpraktyke wat roepingsgerigtheid evalueer en dit kan werkverbintenis verbeter. Hierdie studie bied groter insig in die onderlinge verbande tussen werk as 'n roeping, werkverbintenis en ooreising. Op 'n praktiese vlak kan mensehulpbronbestuurders, verpleegsterbestuurders en gesondheidsorgverskaffers die aanbevelings gebruik om gesondheidsorgwerkers te motiveer sodat hulle produktiewer in die lewering van goeie gesondheidsorgdienste raak. Dit kan eweneens gebruik word om gesondheidsorgwerkers hulle hele werkslewensiklus deur beter te bestuur.

KERNBEGRIFFE

Ooreising, Hulpbronbewingsteorie, Gesondheidsorg, Posvorming, Poseise, Poshulpmiddele, Sinvolheid, Verpleegsters, Passie, Persoonlikheid, Selfbeskikkingsteorie, Selfreguleringssteorie, Sosiale-identiteitsteorie, Werkroepingsoriëntasie, Werkverbinten

isiZulu version

Ngamafuphi

Lolu cwaningo beluphenya umsebenzi njengobizo lomsebenzi, ubudlelwano bokuzibandakanya emsebenzini kanye nomthelela wokukhathala kakhulu kwabasebenzi emkhakheni wezempilo eNamibia. Isaveyi eyencike kumanani iye yenziwa ngokuthi kuthathwe isampuli efanele yabahlengikazi (N = 261) abaqashwe yizibhedlela zikahulumeni kanye nezibhedlela zangasese eNamibia. Uhlaziyo lukaKendall lwe-tau_b luveze ubudlelwano obuhle obuphakathi kobizo/kokufundiswa umsebenzi kanye nokuzibandakanya ngokugcwele emsebenzini, kanye nobudlelwano obubi bokukhathala kwezigatshana ezincane zokudangala kanye nokwenza into ngesizathu sokuzinceda wena wedwa/ukuqeda ukuzibheka wena wedwa. Imiphumela yalolu cwaningo nayo iphakamisa ukuthi kokubili umsebenzi/nobizo lomsebenzi kanye nokuzibandakanya emsebenzini ngokwamanani kuhlobene nombono omuhle wabaphenduli bemibuzo mayelana nomhlaba, okungumthelela obalulekile kwizinga elihle lempilo. Ngaphezu kwalokho, ucwaningo luveze ukuthi ukukhathala kakhulu ngakolunye uhlangothi kunomphumela omuhle wokuxazulula kahle lapho kuhlangukhona umsebenzi/ubizo lomsebenzi kanye nokuzibandakanya emsebenzini. Izimpawu ezikhethiwe zedemografi ngakwenye ingxenye zinomthelela wozinzisa kahle ubudlelwano obuphakathi kohlelo lokungeniswa emsebenzi/obizweni lomsebenzi, kokuzibandakanya emsebenzini kanye nokukhathala kakhulu emsebenzini.

Lolu lwazi olutholakele lungaletha ulwazi olusha olumayelana nedizayini yezingqubo zendawo yomsebenzi, okuyizingqubo ezihlola ukufundiswa ngobizo lomsebenzi kanti lokhu kungaqinisa ukuzibandakanya emsebenzini. Empilweni yangempela, izincomo zingasetshenziswa abasebenzi bomnyango wezokuqhashwa kwabasebenzi, abaphathi babahlengikazi kanye nabahlinzeki bezempilo ngesizathu sokukhuthaza

abasebenzi bezempilo ukuba babe abasebenzi abaqotho mayelana nokunikezwa kwezinsiza zempilo zezinga eliphezulu, kanyenokuthuthukisa nohlelo lokuphathwa kwabasebenzi empilweni yabo yonke yokusebenza.

AMAGAMA ASEMQOKA

Ukukhathala lalkhulu, umqondo/ithiyori emayelana nokuLondolozwa kwemithombo, Uhlelo lokunakekela ngezempilo, ubuciko bokwakha umsebenzi, Izimfuno zomsebenzi, imithombo yomsebenzi, Okusebenza kahle/ngendlela ephilile, Abahlengikazi, Ugqozi/Uthando olukhulu, Ubuntu/Umuntu, umqondo omayelana nokuzicabangela, Umqondo wokuzibekela umgomo, umqondo omayelana nokuzakhela isithombe sakho emphakathini, ukufundiswa ngobizo lomsebenzi, ukuzibandakanya emsebenzini

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CHAPTER 1:

SCIENTIFIC OVERVIEW OF THE RESEARCH STUDY

1.1 INTRODUCTION

Nursing has always been regarded as a calling and a selfless work that provides care to patients and support to relatives. However, with the incredible advances being made in the medical field, professional nurses also have to be highly trained members of the medical team that are able to respond to complex patients' needs. The nature of nursing work could give rise to positive and/or negative psychological consequences. Internationally, professional nurses are working under difficult conditions that lead to negative work outcomes, including burnout. This study attempted to construct and test a model related to the correlation between the perception of 1) work calling orientation (WCO), represented by Calling, Job and Career, 2) the level of work engagement (WE), evidenced by Vigour, Dedication and Absorption, and 3) the incidence of burnout (BO), characterised by Exhaustion, Professional Efficacy and Cynicism/Depersonalisation, among professional nurses in Namibia. The biographical characteristics of the respondents that were measured included age, gender, race/ethnicity, educational attainment, work history (tenure), type of organisation, position and marital status.

This chapter outlines the scientific background to and rationale for the study. The purpose and objectives of the study, as well as the paradigm perspective for the research, are also delineated here. The chapter further deals with the context of the study, articulates the research questions and problem, documents the hypotheses, the contribution of the research, as well as the delimitations and assumptions of the study. Furthermore, this chapter expounds on the research design and methodology to be followed in the empirical study. The chapter outline provides the background to and motivation for the study, which flow into the preliminary literature overview of the three constructs and the interrelationship between them. Finally, the chapter concludes with a summary.

1.2 BACKGROUND AND MOTIVATION FOR THE STUDY

Work calling and work engagement are key components to ensure a thriving and highly productive employee population with minimal negative work impacts, such as

burnout (Wissing, Potgieter, Guse, Khumalo, & Nel, 2014). The role of human resources management (HRM) practitioners is to create a conducive work environment, where individuals from diverse backgrounds can perform effectively to improve organisational performance and maintain a thriving employee population (Gaan & Mohanty, 2014; Manzano-García & Ayala-Calvo, 2013; Van Mol, Kompanje, Benoit, Bakker & Nijkamp 2015; Zhai, Wang & Weadon, 2020). Organisational performance and thriving employees are indicators of the quality of service that leads to organisational competitiveness.

Various studies on work environment have indicated that the employees' demographic characteristics are relevant factors that contribute to a thriving employee population. Similarly, various studies have found that their demographic characteristics appear to influence the employees' perception of work calling orientation, work engagement and the incidence of burnout. For example, with regards to gender, age and culture, a study by Perrone-McGovern, Wright, Howell and Barnum (2014) found significant differences in the way individuals view their work. Sharma, Goel and Sengupta's (2017) study among employees in the IT industry report significant differences in terms of work engagement levels between males and females, and also among staff members with different education levels and different amounts of work experience. Among health care workers, Gleichgerrcht and Decety (2013) reported that demographic characteristics had a moderating effect on compassion, fatigue and burnout.

The quality of care, as discussed by Atinga (2013), and Puri, Chandigarh, Aggarwal, and Kaushal (2012), is generally measured as a function of technical care, interpersonal relations and the facilities available in an organisation. When these conditions are present, employees tend to be more engaged in their work (Puri *et al.*, 2012), and more productive. Albrecht, Bakker, Gruman, Macey and Saks (2015) posit that HRM practitioners need to entrench work engagement in the various HRM policies and practices in the workplace, for example, in personnel selection, socialisation, performance management, training and development. Doing so will facilitate and improve employee engagement that will consequently result in positive outcomes for an organisation's competitive advantage.

This study focuses on some indicators of thriving employees that affect the quality of health care in Namibia, and provides recommendations on how HRM practitioners can

design and implement programmes and systems that will create a thriving employee population that will lead to improved quality of health care. The results of this study will also contribute to the discussion on the interrelationship between work calling orientation, work engagement and burnout among health care workers, and the role of HR practices in creating work conditions appropriate to a thriving employee population.

1.2.1 Health care in Namibia

Health care providers in Namibia fall into three main categories, namely, government establishments, private and church organisations (The Ministry of Health and Social Services Review, 2008; Diamond-Smith, Sudhinaraset & Montagu, 2016). Research studies into the factors of productivity indicate that investment in human capital results in increased organisational performance, greater profit margins, increased productivity, lower absenteeism and a range of related benefits (Gaan & Mohanty, 2014; Mostert, Peeters & Rost, 2011). Although some previous studies have been conducted on the topic of engagement in the Namibian workplace, none have been found that dealt with the interaction of work calling orientation, engagement and burnout among health care workers.

Similar to its neighbouring country, South Africa, Namibia has a high unemployment rate and high inequality of earnings between the rich and the poor (IMF Country Report, 2013). Therefore, it is no surprise that only approximately 20% of the population have access to private health insurance (Lagomarsino & Kundra, 2008), and that most of the low-income earners and the unemployed rely on the government-based health care services (Brockmeyer, 2012). Namibia funds more than 75% of its total health expenditure through domestic resources, such as general government revenue, private employers' contributions and household contributions. According to the US Health Policy Project (2010-2016), the total health expenditure in Namibia has increased by more than 12% annually.

Private health care services are generally of better quality than the services provided in the government-owned institutions in relation to the patient/ health care worker ratio and quality and type of medical equipment (Brockmeyer, 2012; Gustafsson-Wright, Janssens, & Van der Gaag, 2010). According to Brockmeyer (2012), the low income

and unemployed Namibians cannot afford most of the products offered by private health care providers.

The Namibia government spends on average 11% of its budget on health, which compares favourably with the average of 9.6% in the Southern African Development Community (SADC). This provides an indication of the government's commitment to the health care of the citizens (Gustafsson-Wright *et al.*, 2010; Zere, Tumusiime, Walker, Kirigia, Mwikisa, & Mbeeli, 2010).

1.2.2 Challenges in health care service delivery

In an effort to improve the quality of health care service delivery, the Ministry of Health and Social Services (MOHSS) created a pyramid pattern of patient referrals from the health centres and intermediate hospitals in the regions, to the referral hospitals in Windhoek (Gustafsson-Wright *et al.*, 2010; Zere *et al.*, 2010). However, as indicated by Gustafsson-Wright *et al.* (2010) and Zere *et al.* (2010), the referral system does not always function as intended due to various challenges, such as lack of transport, lack of confidence in the regional health service providers, and a general lack of access to these services.

Although the MOHSS continuously reviews the health and social services, and also focuses on human resources issues, the Namibian health care system has been plagued by increasing complaints about and dissatisfaction with the health care services provided to patients (Diamond-Smith *et al.*, 2016, The Ministry of Health and Social Services Review, 2008; Zere, Mandlhate, Mbeeli, Shangula, Mutirua, & Kapenambili, 2007). For example, there have been several reports in the newspapers concerning patients and relatives complaining of negligence, poor service delivery, long waiting times, unethical employee behaviour, carelessness and shortage of medical supplies (Brockmeyer, 2012; Sankwasa, 2012). The poor quality of service delivery mentioned in these reports could be the result of many variables, including systemic factors that lead to employees' poor performance.

The Ministry of Health and Social Services Review (2008) indicates some organisational challenges, as well as possible individual challenges posed by a lack of engagement and alignment to organisational goals among individuals working in the health care system. It has been suggested that HRM practitioners should deal with these challenges by establishing and implementing processes, systems and

programmes to help employees identify their work calling orientation, and to encourage work engagement in health care establishments (Albrecht *et al.*, 2015). While some health care professionals (nurses) may have positive experiences and experience fulfilment on the job that is associated with work a calling orientation (Wrzesniewski, McCauley, Rozin & Schwartz, 1997) and engagement (Bakker & Schaufeli, 2008), others may experience challenges and express the type of dissatisfaction and depersonalisation associated with burnout and disengagement (Schaufeli & Buunk, 2003, p. 386).

Diedericks and Rothmann (2013) maintain that work role-fit, in combination with a trusting and supportive supervisor relationship and the availability of personal resources (cognitive, emotional and physical) strongly impact work engagement and job satisfaction. Personal resources are also important for dealing with long working hours and effective task performance (May, Gilson, & Harter, 2004), and will enable employees to flourish in the workplace (Diedericks & Rothman, 2013). According to Wrzesniewski *et al.* (1997), their initial study on work life indicated that some people are only interested in the material benefits to be obtained from work, and view it only as a means to acquire the resources needed to enjoy their time away from the job. A study by Rothmann and Hamukang'andu (2013) that included work calling orientation among human services in Southern Africa, indicated that improved employee performance was attributed to the individual's alignment with work calling orientation, while Schreuder and Coetzee (2011) attributed work calling orientation to better career outcomes.

1.2.3 The Khomas Region of Namibia

This study focuses on nurses working in two government referral hospitals and two private hospitals in Windhoek, situated in the Khomas Region of Namibia. The Khomas Region is situated in the heart of Namibia and includes the capital city, Windhoek (Windhoek district), which is also the seat of the central government where most resources are allocated. The region is characterised by its hilly countryside and many valleys and has good transportation and communication infrastructure. The Khomas Region borders the Erongo Region to the west and the northwest, with the Otjozondjupa Region to the north, the Omaheke Region to the east and the Hardap Region to the south. It has well-developed economic, financial and trade sectors.

The Khomas Region is one of 14 political and administrative regions of the Republic of Namibia. Although the region occupies only 4.5% of the land area of Namibia, it caters for a population of 342 141 (2011 population census), the highest population of any of the 14 regions and comprises 15% of the total population of Namibia, with most of them living in Windhoek City. Most of the population (90%) in this region have access to health facilities within a 10 kilometre radius. The nurse–population ratio is 1:321, and the population–doctor ratio is 1:3129 (Zere *et al.*, 2010). Though there is a disparity of population to health care workers ration in Namibia, the referral system facilitates health care delivery and quality of care.

The purpose of this study is to explore nature of the interrelationships between having a work calling orientation, work engagement and burnout among nurses in the Khomas Region of Namibia. The government referral hospitals are also located in the Khomas Region and most developmental activities focus here, as the first step. Therefore, this study focused on the health care provided in the Khomas Region (Brockmeyer, 2012; Zere *et al.*, 2010).

1.3 CONCEPTS RELEVANT TO THE STUDY

The section below discusses the concepts of work calling orientation, work engagement and burnout as relevant to the current study.

This section firstly introduces work calling orientation as a construct that expresses autonomous motivation within the context of the Self-determination Theory (SDT). Secondly, a review is presented of work engagement that goes beyond job satisfaction and simple motivation. The third section reviews the literature regarding burnout, with the focus on the Job Demands-Resources (JD-R) Model. Lastly, the interrelationships between work calling orientation, work engagement and burnout are explained, as they relate to the nursing work domain, the focus of this study.

1.3.1 Work calling orientation

Work calling orientation is a construct that “explains [the] individual subjective experience of work and workplace characteristics that function with three elements of calling, job and career orientations” (Dik & Duffy, 2009, p. 427; Wrzesniewski *et al.*, 1997, pp. 22-27). Work calling orientation is associated with intrinsic motivation and

self-determination, and the constructs of competency, relatedness and autonomy (Bakker & Van Woerkom, 2017; Ryan & Deci, 2000) as expounded by SDT.

Research shows that people have three distinct orientations towards their work roles: 'just job orientation' (exclusively as a means of acquiring the necessary financial resources), 'career orientation' and 'calling orientation' (Wrzesniewski *et al.*, 1997) as explained below:

- Employees who view their work as a source of material benefits (job orientation) focus on financial rewards and necessity (Wrzesniewski *et al.*, 1997). They work mainly for money and other benefits, and invest little of their self-identity in their work role.
- Those with career orientation focus on advancement and achievement (Dobrow, 2013). For them work is a source of opportunities for individual accomplishments, such as status, better salary, power, and self-esteem.
- People with calling orientation work for the fulfilment the work gives them and focus on opportunities to create socially-useful work (Bakker & Van Woerkom, 2017). For them the work is an important part of their identity and they are likely to have the greatest investment in their work role. Dobrow and Tosti-Kharas (2011, p. 1002) and Rehfuss, Gambrell and Meyer (2012, p. 145) also add that "individuals with a work calling orientation are more resourceful and follow their career path with a heart of passion" that is not evident in those who do not perceive a work calling in their jobs.

Work as a calling is defined as "a strong sense of inner direction, purpose and a consuming, meaningful passion people experience towards a domain" (Dobrow, 2013, pp. 431-432; Duffy, Bott, Allan, & Dik, 2012, p. 470). Employees who score high on calling orientation believe that their work contributes something good and necessary for themselves, and improves the quality of life for others. Moreover, various scholars posit that "individuals with a strong purpose and intrinsic motivation show higher engagement" levels than others (Duffy, Allan, Autin & Bott, 2013, pp. 42-43; Hirschi, 2012).

The effect of work calling orientation is therefore similar to what Gagne and Deci (2005) expressed as autonomous motivation in their discussion of SDT. SDT, further

distinguishes between autonomous motivation and controlled motivation (Bakker & Van Woerkom, 2017). SDT states that autonomy is the highest level of reflection through which individuals engage in their work activity because they find it interesting and derive pleasure from the performance of the activity (Conklin, 2012; Dobrow, 2004; Shea-van-Fossen & Vrendenburg, 2014; Sperry, 2011). However, controlled motivation connotes a sense of pressure in order to act (Bakker & Van Woerkom, 2017).

Wissing *et al.* (2014) established that individuals who are engaged in what they do experience greater physical and psychological well-being than those who are not motivated or amotivated. Furthermore, they found that a lack of satisfaction leads to poorer job performance and reduced physical and psychological well-being.

This indicates that work calling orientation may positively influence work experiences and outcomes, including burnout (Bakker & Van Woerkom, 2017). This study therefore evaluates the effect of work calling orientation, work engagement and burnout among nurses in the Namibian health care services.

1.3.2 Work engagement

A second important element of this study is work engagement (WE), which is defined by Schaufeli, Salanova, González-Romá and Bakker (2002, pp. 73-74) as a “positive fulfilling work related state of mind characterised by vigour, dedication and absorption”. Additionally, Sonnentag (2017) define work engagement as a process of vigour, absorption and dedication that emerges from task performance and affects employee thriving and well-being. Job satisfaction affects levels of engagement as a result of individual adaptation to job characteristics (Jiang, Milia, Jiang & Jiang 2020). It is an affective motivational state characterised by vigour, dedication and absorption (Hirschi, 2012).

The British Chartered Institute of Personnel Development (CIPD, 2006) also maintains that work engagement goes beyond job satisfaction and should not be seen as simply motivation. The American Society for Human Resources Management provides a definition of engagement (SHRM, 2005) that includes employees’ satisfaction with their work and pride in their employer, the extent to which people enjoy and believe in what they do for work, and the perception that their employer values what they bring to the table. Albrecht (2010) argues that work engagement is a positive work-related

psychological and motivational state that is reflected by a genuine willingness to invest focused effort towards organisational goals and success.

The leaders of organisations, according to Albrecht *et al.* (2015), seek employees who are creative and committed to meeting corporate goals and the goals of both internal and external customers. As a result, work engagement has generated interest in both the academic and practitioner domains (Albrecht, 2010).

Albrecht *et al.* (2015) postulate that employers with a fully engaged workforce tend to have higher profit margins than those with employees who are not engaged. In the highly competitive global economy, high productivity is the aim of every company that aims to remain competitive in business (Reijseger, Schaufeli, Peeters, & Taris, 2012). Similarly, Albrecht *et al.* (2015) confirm that organisations with highly engaged employees perform better than organisations with employees with low work engagement.

1.3.3 Burnout

Thirdly, the construct of Burnout (BO) is described by Schaufeli and Salanova (2014) as a state of mental weariness or tiredness in which employees' demonstration exhaustion (fatigue), cynicism (distance or indifference towards work) and professional inefficacy that translates into low productivity. The individuals feel empty, "devoid of motivation and beyond caring and having no hope of positive change" in their situations (Schultz & Schultz, 2014, pp. 297). Similarly, Demerouti and Bakker (2007) maintain that employees who experience burnout have high levels of exhaustion and negative attitudes towards their work, and experience a lack of well-being in the workplace.

Wissing *et al.* (2014) indicate that work-related well-being of employees is related to lower accident rates, turnover intention and absenteeism, as well as positive attitudes, productivity, employee commitment and job satisfaction. A study on health caregivers in sub-Saharan Africa by Thiam, Kimotho and Gatonga (2013) indicates that high patient-to-caregiver ratios and lack of equipment result in heavy workloads that can lead to burnout. Burnout may be one of the leading causes of the migration of health care workers to developed nations, which further aggravates the shortage of manpower and compounds the systemic challenges experienced by health care in developing countries.

Maslach and Leiter (2008, pp. 498-499) established burnout to mean the following:

The psychological syndrome that involves a prolonged response to chronic stress on the job and evidenced by overextension and depletion of individual's emotional and physical resources (exhaustion), depersonalisation or negative, callous or excessive detached response to various aspects of job (cynicism) and feelings of incompetency, reduced accomplishment, and lack of achievement and productivity (inefficacy).

The individuals experiencing burnout feel empty, “devoid of motivation and beyond caring and having no hope of positive change” in their situations (Schultz & Schultz, 2014, pp. 297-300). There is a sense in which engaged employees craft their jobs and avert negative work experiences, such as burnout (Rothmann & Hamukang'andu, 2013).

1.3.3.1 Work attitudes and work outcomes

Scholars in the field of organisational behaviour emphasise that a positive attitude towards work and the workplace is important to ensure the increased productivity that enhances organisational competitiveness (Mageau & Vallerand, 2011; Schaufeli & Salanova, 2014). These attitudes are related to work orientation and resources, and are usually defined as the general relationship to work in terms of purpose and psychological meaning (Conklin, 2012; Shea-van-Fossen & Vrendenburg, 2014; Wrzesniewski *et al.*, 1997; Zhai, Wang, & Weadon, 2020).

Work calling orientation has been associated with positive intrinsic and extrinsic motivation where individuals find satisfaction from the jobs they do, and from the impact their work has on others (Conklin, 2012; Dobrow, 2004; Sperry 2011; Shea-van-Fossen & Vrendenburg, 2014). Some of these attitudes and feelings are similar to work engagement.

Work engagement consists of “vigour (dynamism and energy), dedication (devotion and commitment) and absorption (inclusion and interest)”, according to Schaufeli *et al.* (2002, pp. 73-74) which is developed in the process of task performance (Sonnentag, 2017). Conversely, burnout is a more chronic state of exhaustion (tiredness and fatigue), cynicism and alienation (estrangement and disaffection) and the depersonalisation of recipients (Sonnentag, 2017).

Work calling orientation consists of a “strong sense of inner direction (energy), purpose (reason and intention) and passion (enthusiasm and excitement) towards a domain” (Duffy, Autin, & Bott, 2012). Moreover, Maslach, Schaufeli and Leiter (2001, pp. 397-398) propose that “employees who truly love their work have high work engagement and are less likely to suffer from burnout”.

Regarding engagement and burnout, Maslach *et al.* (2001) concluded that employees who truly love their work may have a high work engagement and are less likely to suffer burnout. Work engagement is a positive outcome, while burnout is a negative outcome (De Carlo, Girardi, Falco, Dal Corso, & Di Sipio). Work engagement and “experiencing joy in one’s work contributes to employee wellness” (Duffy *et al.*, 2012, p. 470) which leads to better organisational performance (Zhai, Wang, & Weadon, 2020). Thus, job resources facilitate coping with job demands and prevent negative work-related outcomes (De Carlo *et al.*, 2019). However, a study by Rothmann and Hamukang'andu (2013) found that work calling orientation contributes to people extending their work roles to their self-concepts.

By definition, work engagement and work calling orientation may be similar in relation to vigour-energy and absorption-passion. Based on this statement, the focus of this study lies in identifying the interrelationship between work calling orientation, work engagement and burnout among professional nurses in the Khomas Region of Namibia.

1.4 PROBLEM STATEMENT

There are numerous scholarly works on the topic of work calling orientation (Rothmann & Hamukang'andu, 2013), but few of these focus on Namibia, and even fewer on the health care industry in Namibia. In addition, there is limited empirical evidence on the interrelationships between work calling orientation, work engagement and burnout in the Southern African region. Health care workers in sub-Saharan Africa, including Namibia, function in health care systems where workloads are high and resources are limited (Howlett & Collins, 2014; Mostert *et al.*, 2011; Shannon, 2013; Thiam *et al.*, 2013).

According to the Namibian Auditor General Report (2009), the challenges faced by the MOHSS include inefficient service delivery to the citizens at the state health facilities, essentially due to staff shortages, shortage of medical equipment, and the

poor access to health facilities. Other challenges, according to Sherif (2010), include a shortage of medical instruments in the consulting/ examination rooms of some health facilities, unavailability of spare parts required for maintenance at hospitals, and no transport for engineers and engineering technician who need to go out for repairs. Furthermore, the report adds that overcrowding in the hospital wards leads to a mixture of patients with different illnesses in one ward that has a negative effect on their health condition and nursing care outcomes.

With the increasing awareness of patient rights and information explosion, quality of service is important to meet customer demands and to provide a value proposition. This is especially applicable to the private sector, and this is a mechanism that makes good business sense (Atinga, 2013; Puri *et al.*, 2012). This suggests that, unless customers are provided with the best care and care is taken to minimise adverse treatment outcomes, health care organisations could suffer operational setbacks (Abuosi, 2015). Entrenching work engagement in HRM policies and practices can also help organisations manage resource challenges and continuously improve quality health care.

The main purpose of this study is to contribute to a better understanding of the interrelationships between work calling orientation, work engagement and burnout within the Namibian health care context. The insight into the interrelationship between work calling orientation, work engagement and burnout among Namibian nurses will be useful in the design and implementation of HR programmes. The HR programmes will focus on improving employee wellness leading to quality health care. These programmes can be utilised for the recruitment, training, mentoring and motivation of individual nurses to avoid negative work outcomes, such as burnout. If the recommendations of this study are adopted, they will also impact the development of appropriate Employee Assistance Programmes in the Namibian health care system.

In light of the above assumptions, it is critical to explore whether nurses perceive their professions to be a calling. Furthermore, it is important to investigate if having calling orientation helps them to adapt to the work environment, and consequently to thrive in the work domain (Wissing *et al.*, 2014). This research therefore investigated the extent to which nurses in the Namibian health care sector perceive their profession to be a calling, and whether that helps them to develop coping strategies to foster work engagement and to avoid burnout in their work practices.

From the above, the research aims as listed in the next section, were formulated.

1.5 RESEARCH AIMS

The aims and underlying objectives of this study were to gain in-depth knowledge and understanding of nurses' perceptions of work calling orientation in their jobs, how these correlates to their work engagement, and to reveal cases of burnout in the Khomas Region of Namibia. The findings of the study will then present how work calling orientation, work engagement and burnout are inter-connected among nurses.

In terms of the literature review, the specific aims were as follows:

Research aim 1: To theoretically conceptualise the constructs of work calling orientation, work engagement and burnout, and their respective sub-dimensions.

Research aim 2: To identify the nature of theoretical relationship between work calling orientation, work engagement and burnout, and their respective sub-dimensions.

Research aim 3: To identify from literature the moderating effect of demographic characteristics on the interactions between the constructs of work calling orientation, work engagement and burnout.

In terms of the empirical study, the specific aims were as follows:

Research aim 4: To measure levels of work calling orientation, work engagement and burnout among nurses in the Khomas Region of Namibia.

Research aim 5: To investigate whether significant differences exist between groups of nurses as defined by selected demographic characteristics in relation to work calling orientation, work engagement and burnout in the Khomas Region of Namibia.

Research aim 6: To identify the nature of the statistical relationship between levels of work calling orientation and work engagement among nurses in the Khomas Region of Namibia.

Research aim 7: To identify the nature of the statistical relationship between work calling orientation and burnout among nurses in Khomas Region of Namibia.

Research aim 8: To identify the nature of the statistical relationship between burnout and work engagement among nurses in the Khomas Region of Namibia.

Research aim 9: To test the mediating effect of burnout on the interaction between work calling orientation and work engagement.

Research aim 10: To test the moderating effect of selected demographic characteristics on the interactions between work calling orientation, work engagement and burnout.

1.6 RESEARCH QUESTIONS

The overarching question this study aims to answer is:

What is the nature of the interactions between work calling orientation, work engagement, burnout and their respective sub-dimensions, and what are the effects of the demographic characteristics on these interactions among nurses in the Khomas Region of Namibia?

In terms of the literature review, the specific research questions were formulated as follows:

Research question 1: How does the existing literature conceptualise the constructs of work calling orientation, work engagement and burnout and their respective sub-dimensions?

Research question 2: How does the existing literature describe the relationship between work calling orientation, work engagement and burnout?

Research question 3: How does the literature explain the moderating effect of demographic characteristics on the interactions between the constructs of work calling orientation, work engagement and burnout?

In terms of the empirical study, the specific research questions are as follows:

Research question 4: To what extent do nurses in the Khomas Region of Namibia measure on work calling orientation, work engagement and burnout?

Research question 5: Do levels of work calling orientation, work engagement and burnout differ significantly between groups of nurses in the Khomas Region of Namibia, as defined by selected demographic characteristics?

Research question 6: Is there a positive significant relationship between levels of work calling orientation and work engagement among nurses in the Khomas Region of Namibia?

Research question 7: Is there a negative significant relationship between levels of work calling orientation and burnout among nurses in the Khomas Region of Namibia?

Research question 8: Is there a negative significant relationship between levels of burnout and work engagement among nurses in the Khomas Region of Namibia?

Research question 9: Does burnout have any mediating effect on the relationship between levels of work calling orientation and work engagement among nurses in the Khomas Region of Namibia?

Research question 10: Do specific demographic characteristics have any moderating effect on the interaction between work calling orientation, work engagement and burnout among nurses in the Khomas Region of Namibia?

1.7 STATEMENT OF SIGNIFICANCE

The results and recommendations of this study will contribute to the field of human resource management of nurses in three distinct areas: theoretical, procedural and practical. Van Merriënboer and De Bruin (2014) suggest that the significance of research is judged by its contribution to the extension, transformation or complication of the body of knowledge, theory and practice. Further, the aforementioned authors posit that research brings clarity from confusion, makes what is hidden visible, or deepens the understanding of the body of knowledge. This study therefore contributes to the clarity of the perceived constructs and the interrelationships of the constructs among nurses.

1.7.1 Potential contribution on a theoretical level

At a theoretical level, the findings of this study could be useful for the selection, placement and retention of employees. Additionally, employee assistance programmes may be implemented in the workplace to help employees integrate into professions or to train for transfer into areas of individual calling as a result of identifying the relationship between the three constructs of work calling orientation, work engagement and burnout. The study's findings of significant relationships should

be useful in the development and training of employees with characteristics that fit specific areas of the nursing profession (employee-job-fit) and for recruitment and retention purposes.

1.7.2 Potential contribution on a procedural level

The findings of the study are significant to the health care sector in general, as well as specifically, as the identification of key factors and variables that constitute work calling orientation, work engagement and burnout could assist management in designing employee assistance programmes. To leverage human capital, this study provides recommendations for the development of human resource practices, as well as the activities of nurse practitioners and industrial psychologists that can improve the work environment and that involve employees at all levels, backed by client-centred training programmes to help clinicians deliver quality care to customers' expectations.

1.7.3 Potential contribution on a practical level

This study appraised the extent to which nurses in the Khomas Region of Namibia perceive work as a calling, and how this correlates with the levels of work engagement and the incidence of burnout. The study revealed evidence of a significant correlation between work calling orientation, work engagement and burnout according to the hypotheses of the study. Therefore, the findings of the study can be used to improve the management of nurses in the Namibian health care system. Thus, these considerations can be applied in the recruitment and selection of employees who have a work calling orientation, and are therefore possibly less likely to suffer from job-related burnout, and are more likely to engage with their jobs. The recommendations of this study can also have a positive impact on the development of appropriate Employee Assistance Programmes in the Namibian health care system.

In summary, this study will contribute to the body of knowledge in the fields of effective recruitment, and enable the identification of strategies to reduce burnout in nurses, and thus, potentially improve employee engagement levels in the Khomas Region of Namibia. The study also provides insight into these phenomena within the Namibian context. In addition, recommendations have been made for programmes and activities that can improve and maintain an engaged workforce and reduce the effect of burnout in the Khomas Region of Namibia. Finally, this research adds a new perspective to

the existing body of knowledge and provides in-depth knowledge of employee work calling orientation, work engagement and burnout in the Namibian health care sector.

1.8 PARADIGM PERSPECTIVES OF THE RESEARCH

A primarily positivist worldview was followed in this study (Welman, Kruger, & Mitchell, 2012) through the application of a quantitative research approach. The positivist paradigm was selected as the method of inquiry, stemming from the notion that human beings are rational, economic beings, although they do not always act rationally (Ryan & Deci, 2000). This research study employed a quantitative method aimed at testing the study's hypotheses to obtain a certain "objective" truth (Welman *et al.*, 2012) through the measurement of the effect of work calling orientation and how this relates to work engagement and burnout (Antwi & Hamza, 2015).

1.8.1 The intellectual climate

On a meta-theoretical level, the SDT explained why some individuals are more persistent, proactive and positive towards their jobs than others (Ryan & Deci, 2000). From an SDT perspective, Meyer and Gagne (2008) posit that intrinsic motivation is generated when employees perform activities for their enjoyment and interest, while extrinsic motivation reflects a desire to gain rewards or avoid punishment (Bidee *et al.*, 2013). Employees who are engaged in their work display vigour, dedication and absorption in their work. Ryan and Deci (2000) also add that in the case of complex activities that require sustained efforts, individuals require self-monitoring and self-regulation to enable them to develop competence and the effective performance of tasks. According to Meyer and Gagne (2008), the SDT suggests that the key to autonomous activity or self-regulation is the satisfaction of the basic psychological needs for competence, autonomy and relatedness. Similarly, Ryan and Deci (2000) argue that a lack of satisfaction leads to poorer performance and reduced physical and psychological well-being (Bidee *et al.*, 2013).

Critical realism is a sub-type of positivism that incorporates some value assumptions on the part of the researcher about the observable and measurable human behaviour (Creswell, 2009; Welman *et al.*, 2012). When researchers gather data on instruments, it reflects the reductionist perspective associated with post-positivism. An analysis was

done to discover the correlation between work calling orientation with employee engagement levels and burnout among nurses in the Khomas Region of Namibia.

Furthermore, this study was supported by the JD-R model that explained the correlation between job demands, job resources, burnout and work engagement (Bakker & Demerouti, 2006; Schaufeli & Bakker, 2004). The JD-R model, however, does not explain the intrinsic motivation of individuals to pursue certain activities in specific work domains, while others are not intrinsically motivated to do the same. This prompted the additional utilisation of the SDT in the study to underpin the work calling orientation perspective in relation to the outcomes of work experience among nurses in the Khomas Region in Namibia.

1.8.1.1 Literature review

The literature review will be presented from the following paradigmatic perspectives:

(a) The humanistic paradigm

Humanistic psychology emerged in the late 1950s and early 1960s, as a backlash to the predominant psychological theories of psychoanalysis, behaviourism and conditioning. The humanistic psychological perspective emphasises the study of the whole person (Taylor & Medina, 2011). It assumes that individual behaviour is primarily determined by their perception of the world around them and their personal meanings; individuals are not solely the product of their environment or their genes; and that individuals are internally directed and motivated to fulfil their human potential (Wissing *et al.*, 2014).

As a means of promoting ethical behaviour and belongingness, human beings have the desire to comply with group values, rules, procedures and regulations (Mallett & Rynne, 2010). The humanistic paradigm, according to Taylor and Medina (2011), communicates the ethical context of work calling orientation, work engagement and other related factors in the study.

(b) The positive psychology paradigm

Positive psychology, initiated by Seligman (2003), is the term given to a collection of studies aimed at researching what makes life worth living. Positive psychology aims at gaining a deeper understanding of positive emotions, positive traits, and positive

institutions (Wissing *et al.*, 2014). Seligman (2003), influenced by the humanistic psychology, built a more complete picture of human experience, and identified factors leading to well-being, including positive emotion, engagement, relationships, meaning and purpose and accomplishment (Seligman, Steen, Park, & Peterson, 2005).

According to Faller (2001), psychology should be about the study of both weakness and strengths and should be interested in the total human experience, encompassing both the positive and negative. Positive psychology focuses on what makes life worth living, most fulfilling, most enjoyable and most productive (Grant, Berg, & Cable, 2014).

For the purposes of this study, the positive psychology paradigm perspective relates to work calling orientation, work engagement and burnout.

(c) Positivist paradigm

Positivist research emphasises objectivity while collecting evidence and then studying the relationships between sets of facts (Anderson, 2009). Anderson (2009) adds that quantitative data are analysed using valid statistical techniques to produce quantifiable and if possible generalisable conclusions. This approach centres on the importance of studying social and organisational realities in a scientific way.

Mackenzie and Knipe (2006) posit that positivism, which is sometimes referred to as a scientific method or science research, is based on the rationalistic, empiricist philosophy that reflects a deterministic philosophy in which causes probably determine effects or outcomes (Creswell, 2009). Positivists endeavour to test theory or illustrate knowledge through observations and measurements in order to predict and control forces in our world (Mackenzie & Knipe, 2006).

For the purposes of this study, the positivist paradigm is important because it attempts to draw objective conclusions by minimising errors through statistical data analysis. The empirical study in this research is in the form of a quantitative study (Pallant, 2010).

1.8.2 Market of intellectual resources

The scholars, Marr, Schiuma and Neely (2004) describe the market of intellectual resources as key resources, drivers of performance and value addition in

organisational performance. Epistemologies differ between individuals, and therefore there are divergent views of the knowledge creation process, influenced by the social and cultural contexts, as well as by the nature of being (ontology) of individuals or groups of individuals (Meditinos, Chatzoudes, Tsairidis, & Theriou, 2011).

For the purposes of this study, theoretical models, meta-theoretical statements and conceptual descriptions relate to the positive psychological constructs of work calling orientation, work engagement and burnout. Additionally, theoretical models and conceptual descriptions relate to the organisational climate that is affected by the job resources and job demands required for organisational competitiveness.

1.8.2.1 Meta-theoretical statements

Meta-theoretical statements represent an important category of assumptions underlying the theories, models and paradigms of this research study. Meta-theoretical investigations are generally part of the philosophy (Giaretta & Guarino, 1995). Correspondingly, a meta-theory is an object of concern to the area in which the individual theory is conceived.

Therefore, meta-theoretical statements are presented on the following disciplines:

(a) Positive work and organisational psychology

Positive work and organisational psychology is the study of nature, manifestations, patterns, origins, dynamics, and the development of strengths on the individual, group and community level (Wissing *et al.*, 2014). It is considered part of health psychology which deals with the enhancement of human functioning, and which emphasises the positive aspects of human behaviour and well-being (Grant *et al.*, 2014).

Therefore, positive work and organisational psychology centre on what enables individuals and organisations to thrive, focusing on strengths and existing resources.

For the purposes of this study, the correlation between work calling orientation, work engagement and burnout is explored.

(b) Personnel psychology

Personnel psychology is the study of individual differences in the workplace using differences among employees to predict optimal fit between employee and work organisation (Grant *et al.*, 2014). In-depth knowledge of these differences and their

implications in the employment life cycle is instrumental in the effective management of the work systems and processes leading to organisational competitiveness.

The premise of the current study is the employees' perception of work calling orientation in their jobs, the effect this has on work engagement and burnout. HRM practices emphasise the creation of an enabling environment for people to cultivate initiatives and promote the freedom, choices and capabilities that lead to economic, social and cultural progress. HR practitioners, therefore, need to create the infrastructure to empower people to capitalise on this knowledge by making knowledge inputs widely available (Van Bogaert *et al.*, 2017).

1.8.2.2 Theoretical model

A theoretical model is the framework against which ideas, interrelated concepts, definitions and propositions hold or support the theory of a research study. The theoretical framework introduces and describes the theory that explains why the research problem under study exists (Walliman, 2011). It consists of concepts, definitions and references to relevant scholarly literature and existing theories that are used for a particular study.

The theoretical framework in this study demonstrates an understanding of the theories and concepts that were relevant to the topic of the research, and that relate to the broader areas of knowledge that were considered.

In terms of the literature review, specific theories that were reviewed include:

- The SDT on interaction and communication with reference to service delivery (Ryan & Deci 2000),
- Bandura's personality theory on the beliefs a person has about their ability to carry out the behaviours needed to reach certain desired outcomes (Swartz, De la Rey, Duncan, Townsend, & O'Neill, 2016),
- Social identity theory (Haslam, 2014);
- Conservation of Resources Theory (COR) which stipulates that individuals are motivated to protect and acquire new resources (Bal & De Lange, 2015),
- Social Cognitive Theory (SCT) which assumes that personal resources, such as self-efficacy, are positively related to work engagement, and finally.

- The Broaden and Build Theory which presumes that positive emotions build individual resources that promote well-being and adaptation (Salanova, Schaufeli, Xanthopoulou, & Bakker, 2009).

1.8.2.3 Conceptual descriptions

This sub-section provides conceptual descriptions of the concepts relevant to the current study.

Work calling orientation

Dik and Duffy (2009) conceptualised the construct of work calling orientation as related to the individual sense of purpose, meaning and value alignment that contribute to employee well-being and job satisfaction.

The concepts relevant to work calling orientation sub-dimensions are described below:

- **Calling orientation** is defined as “a strong sense of inner direction, purpose and a consuming, meaningful passion people experience towards a domain” (Dobrow, 2013, pp. 431-432) and supported by Duffy *et al.* (2012, p. 470).
- **Job orientation** as a “category of calling is defined as the extent to which individuals tend to view their work as means to an end” (Wrzesniewski *et al.*, 1997, pp. 22-25).
- **Career orientation** refers to individuals who focus on elements related to success or prestige and who are interested in the ability to move upward in their careers, to receive raises and new titles, and to achieve the social standing that comes from their career (Wrzesniewski *et al.*, 1997).

Work engagement

Work engagement was defined by Kahn (1990) as the extent to which individuals harness themselves to their work role to express their physical, cognitive, emotional and mental involvement in job performance.

The concepts relevant to the work engagement sub-dimension are described below:

- **Vigour** is defined by Schaufeli and Bakker (2004, p. 295) as “high levels of energy and mental resilience while working, the willingness to invest effort in one’s work, and persistence in the face of difficulties”.

- **Dedication** is evidenced by “being strongly involved in one's work, and experiencing a sense of significance, enthusiasm, inspiration, pride, and challenge” (Schaufeli & Bakker, 2004, p. 295).
- Schaufeli and Bakker (2004, p. 295) define **absorption** as being highly concentrated on and happily engrossed in work that is closely linked with the notion of flow. It is the third dimension of engagement, which was found to be a constituting element of engagement in thirty (30) in-depth interviews (Schaufeli *et al.*, 2002).

Burnout

Schaufeli and Bakker (2004) describe burnout as a state of mental weariness in which employees' exhibit exhaustion (fatigue), cynicism (distance or indifference towards work) and reduced professional efficacy that translates into low productivity.

The concepts relevant to burnout sub-dimensions are described below:

- Leiter and Maslach (2005) conceptualise **emotional exhaustion** as the opposite of energy (vigour), one of the elements of engagement, measured by feelings of depletion and irritation that are associated with daily work pressure.
- Maslach *et al.* (2001) expound the burnout component of **cynicism or depersonalisation** to represent the interpersonal context dimension of burnout that refers to a negative, callous, or excessively detached response to various aspects of the job.
- **Reduced professional efficacy** or lack of personal accomplishment is the opposite of efficacy, which is described in Bandura's Personality Theory as the “beliefs a person has about their ability to carry out the behaviours needed to reach certain desired outcomes” (Swartz *et al.*, 2016, pp. 131-132).

1.8.2.4 Central hypothesis

Welman *et al.* (2012) describe a hypothesis as a statement or proposition that can be tested by reference to empirical study. Translating a research problem into a relationship between two or more variables in one or more population results in the formulation of relevant hypotheses for study (Anderson, 2009; Welman *et al.*, 2012).

The overall focus of the study is to investigate the nature of the interrelationship between work calling orientation, work engagement, burnout and their respective sub-dimensions among nurses in the Khomas Region of Namibia. This means that if they have a higher score in work calling orientation they should score higher in work engagement and less in burnout. Thus, the hypotheses that this study aims to investigate are whether nurses in the Khomas Region of Namibia show evidence of work calling orientation and less incidence of burnout leading to higher work engagement levels. The hypotheses based on the research aims are articulated in the methodology chapter.

1.7.2.5 Theoretical assumptions

Based on the literature review, the following theoretical assumptions are addressed in this research:

Schaufeli and Bakker (2004) found that burnout negatively correlates to work engagement while Rothmann and Hamukang'andu, 2013 postulate that employees with work calling orientation are able to craft their jobs to avoid negative work experiences.

A study by Maslach *et al.* (2001) concludes that employees who truly love their work may be more engaged in their work and less likely to suffer burnout.

In their definition of work calling orientation, Duffy *et al.* (2012, p. 470) proposed that it is a “strong sense of inner direction, purpose and a consuming, meaningful passion people experience towards a domain”.

Therefore, the underlying assumptions of this study are that employees who perceive work as a calling will score low on burnout and high on work engagement. Moreover, it is assumed that a work calling orientation negatively correlates to burnout while work calling orientation correlates positively to work engagement.

1.8.2.6 Methodological assumptions

Methodological assumptions consist of the assumptions made by the researcher regarding the methods used in the process of qualitative research (Creswell, 2009). The procedures used by the researcher are inductive and are based on the researcher's own experience in collecting and analysing data (Anderson, 2009).

1.8.3 Dimensions of the research

This section discusses the sociological, ontological, epistemological and methodological dimensions of the research.

1.8.3.1 Sociological dimension

The sociological dimension describes the social relationships among individuals and groups and identifies the motives of respondents (Kothari & Garg, 2014). It uses a multi-dimensional model to explain variations in the behaviour of social life that is measured according to direction, location and distance (Van Merriënboer & De Bruin, 2014).

This research study is descriptive in nature and includes a quantitative analysis of the variables and concepts that are discussed in it.

1.8.3.2 Ontological dimension

Ontology is the philosophical field revolving around the study of the nature of reality (all that is or exists), and the different entities and categories within reality (Van Merriënboer & De Bruin 2014). The way an individual sees and interprets something depends on their own reality. The ontological dimension (nature of being) of research relates to constructs that are investigated in reality and measured in human behaviour. Ontology tries to answer the questions: 1) What is being? and 2) What are the features common to all beings? (Giaretta & Guarino, 1995). Van Merriënboer and De Bruin (2014) add that ontology refers to a particular determined object whose nature may vary depending on the choice among interpretations or a philosophical discipline.

This research focused on and measured the perception of work calling orientation, level of work engagement, and the incidence of burnout among nurses in the Khomas Region of Namibia.

1.8.3.3 Epistemological dimension

According to Bryman (2012), the epistemological dimension deals with what should pass as appropriate knowledge. The purpose of social science research is to understand the nature and practice of organisation in order to solve management-oriented problems (Bryman, 2012).

This research endeavoured to achieve this by implementing a good research design, and by the achievement of reliable and valid results.

1.8.3.4 Methodological dimension

The methodological dimensions explain the worldview underpinning the approach adopted in gathering and evaluating, or making sense of, data (Anderson, 2009). Research methodologies are classified as quantitative or qualitative. The quantitative approach is used to answer questions about relationships among measured variables in order to explain, predict and control the phenomena, while the qualitative approach seeks to understand complex situations (Leedy & Ormrod, 2013).

This research study presented quantitative (exploratory, descriptive and diagnostic) research in the form of a literature review and empirical study focusing on work calling orientation, work engagement and burnout.

1.9 RESEARCH DESIGN

This study adopted a non-experimental and cross-sectional design in which correlation between perceived work calling orientation, work engagement and burnout was drawn (Welman *et al.*, 2012). It is a correlational design in which the three constructs were measured and analysed. The rationale for employing the non-experimental research design is to identify the relation and frequency of the three constructs among the nurse population in a natural setting. Thus, the data were collected without making any changes or introducing any data treatment (Walliman, 2011). It measured the three variables of interest and then assessed the interrelationship between them. So doing helped to determine the situation as it existed at the time of the study.

This study is therefore directly linked to the core research questions regarding the extent to which employees perceive work calling orientation, the level of engagement and the incidence of burnout among nurses in the Khomas Region of Namibia. Additionally, the study measured and assessed the interrelationship between the three constructs, together with their sub-dimensions, and determined the statistical effects of the demographic characteristics as moderators of the interactions.

The conceptual model, as shown in Figure 1.1 (on the next page) was used in the research study.

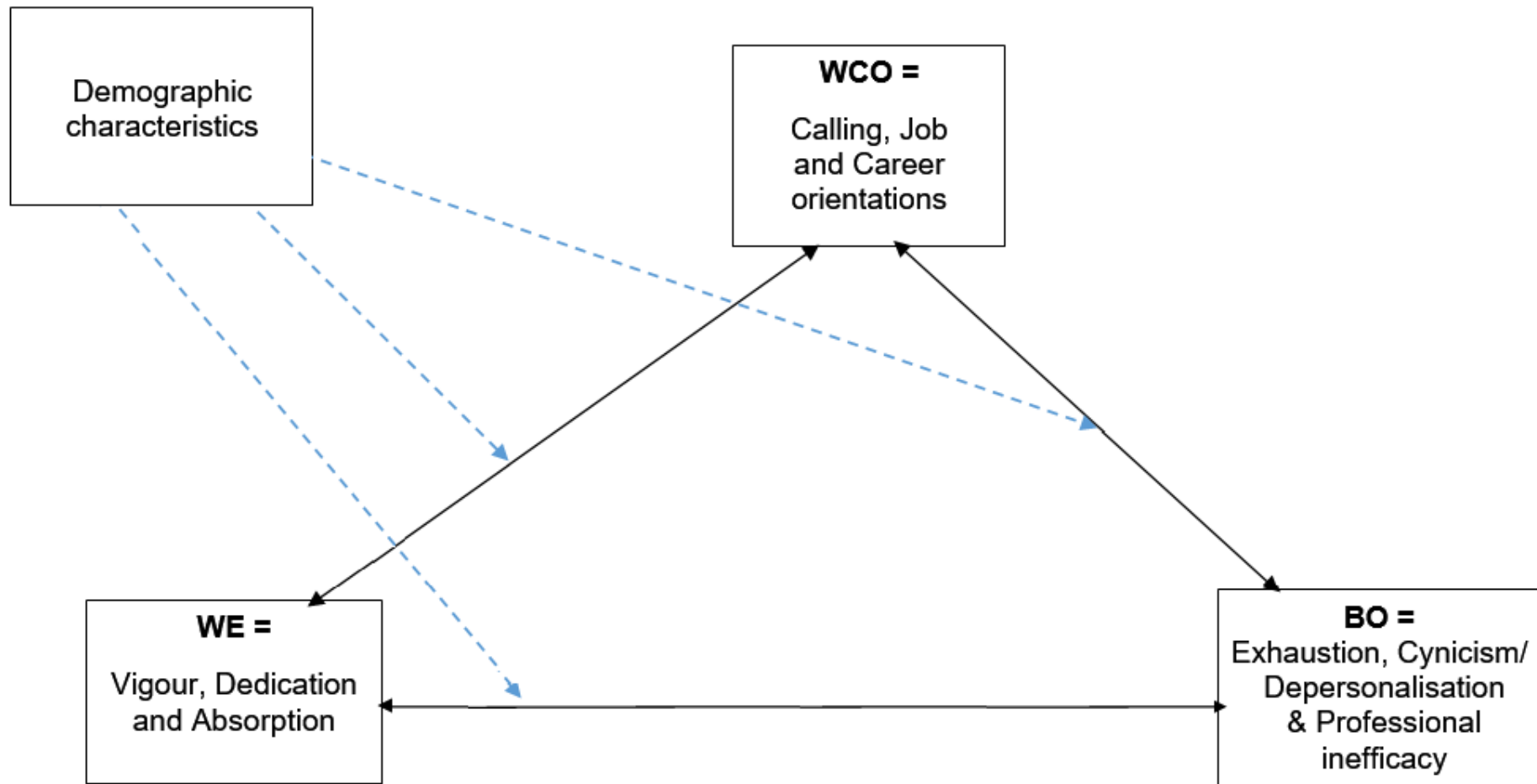


Figure 1.1:
Interaction between Work Calling Orientation, Work Engagement, Burnout and their respective sub-dimensions, with demographic characteristics as moderator

1.9.1 Exploratory research

Kothari and Garg (2014) posit that exploratory research, also known as formative research, aims at formulating problem statements for precise investigation, or developing working hypotheses from an operational point of view. They state that the major emphasis is on discovering new ideas and gaining new insight, which requires flexibility in the design to allow for the consideration of the different aspects of the research problem.

This research study is exploratory because it evaluated and tested certain relationships from the various theoretical perspectives of work calling orientation, work engagement and burnout.

1.9.2 Descriptive and diagnostic research

Descriptive research is concerned with describing the characteristics of a particular individual or group of individuals, whereas diagnostic research focuses on determining the frequency of occurrence and its association with something else (Kothari & Garg, 2014).

The purpose of this study was to systematically classify the interrelationship between work calling orientation and work engagement, and to identify incidents of burnout among the different demographic characteristics.

1.9.3 The variables

Variables are concepts or characteristics that can take different quantitative values (Kothari & Garg, 2014). According to Leedy and Ormrod (2013), independent variables have a casual or correlational effect, while the dependent variables are affected by the independent variables.

The current study evaluated the interaction of the demographic characteristics, as moderating variables between the constructs of work calling orientation, work engagement and burnout.

1.9.4 Ethical considerations

At the onset of the study, ethical clearance was applied for and received from the University of South Africa (UNISA) and the Namibian Ministry of Health and Social

Services Ethics Committee that gave the researcher permission to obtain clearance from the respective hospitals before collecting the data. Further, clearance was obtained from the individual hospitals and from the UNISA research and ethics committee (Appendix A attached).

Ethics implies the standards and norms of conduct that distinguish between acceptable and unacceptable behaviour in research. Leedy and Ormrod (2013) expound that standards and norms are important because research involves human beings who can think, feel and experience physical and psychological stress in the process. Basic categories of ethical issues deal with protection from harm, voluntary and informed consent, right to privacy and professional integrity (Leedy & Ormrod, 2013; Walliman, 2011; Welman *et al.*, 2012). Welman *et al.* (2012) add that ethical considerations come into play during all the phases of the research: when participants are selected, during data collection, during the analysis procedures, and in the release of the results obtained. This study posed no serious ethical problems and all the participants were adult caregivers with the ability to advocate for their own needs and desires.

The following discussion relate to the ethical issues dealt with in this study.

1.9.4.1 Confidentiality

Leedy and Ormrod (2013) state that studies involving human participants must respect the individuals' right to privacy by maintaining strict confidentiality so that other readers cannot attribute responses to any particular respondent. The data collected in this study was coded for analysis so that the responses cannot be attributed to individual respondents, thereby ensuring the anonymity of the participants (MacMillan, 2012). Raw data from individual participants was not posted online. The personal information of the respondents was protected and will not be revealed unless written permission is obtained from the respondent (Kothari & Garg, 2014). Furthermore, confidential information about organisations and participants was protected to avoid any discomfort or sensitivity that some questions might have caused for the participants (Leedy & Ormrod, 2013). The process of data collection also avoided discrimination against participants on any basis of diversity.

1.9.4.2 Informed consent

Informed consent was obtained from the participants, and they were informed that their participation in the study was voluntary. This included briefing the participants about the purpose of the research, and maintaining integrity by keeping promises and agreements (Creswell, 2009). Debriefing was also done to identify any insights participants might have gained in the process of data collection (Leedy & Ormrod, 2013). The purpose of the debriefing was to clarify and correct any misinformation respondents might have had during data collection, and gave them more information on the nature and results of the study.

1.9.4.3 Honesty and integrity

Accurate and proper citation and referencing was maintained throughout the study when using other researchers' ideas or words (Leedy & Ormrod, 2013:108). Honest communication about research was maintained to ensure the trust and credibility that is necessary to promote the development of knowledge (Walliman, 2011). The research findings were accurately reported, regardless of the impact these might have on the research questions and hypotheses (Kothari & Garg, 2014).

This study observed integrity in keeping promises and agreements with the organisations and employees where the study was carried out. In addition, sincerity and consistency were maintained throughout the process of the study. Any assistance given by colleagues and supervisors was also acknowledged.

1.9.4.4 Objectivity and accuracy

The research design was selected to obtain the best results for the study, while the data sources, interpretation, decisions and other aspects of the research were done in relation to the research problem and objectives (Leedy & Ormrod, 2013, pp. 80-82). The research design of this study considered all aspects of data sources, interpretation and decisions that might arise as a result of recommendations made.

Scientific writing requires accuracy and optimal clarity to study meaningful and appropriate knowledge in a particular field (Welman *et al.*, 2012). Accurate records were kept on research activities, such as data collection, research design and correspondence with agencies and other sources of information. Care was taken to avoid careless errors and negligence in the process of critically examining own work and that of others.

1.9.4.5 *Respect for intellectual property*

Creswell (2009) explains academic plagiarism as the intentional and wrongful appropriation and stealing for publication of another author's language, thoughts, ideas, expressions and presenting them as one's own original work. Additionally, Walliman (2011) discusses the proper methods of citation and referencing that allow researchers to use the work of others. This study used the APA system of citation and referencing. During the process of this study patents, copyright and other forms of intellectual property were respected and maintained by obtaining permission, authorisation, and clearly citing and referencing all sources of information. Throughout the research process all contributors were acknowledged.

1.9.4.6 *Openness and non-discrimination*

Leedy and Ormrod (2013) describe openness as the sharing of data, research results, ideas, tools, and resources while being open to criticism and new ideas through the publication of the research. Acknowledgement, credit and indebtedness were given where professors and colleagues gave advice and contributed to this study (MacMillan, 2012).

Researchers should avoid discrimination against respondents regarding gender, race/ethnicity or other diversity factors that are not related to scientific competence and integrity (Leedy & Ormrod, 2013). Since the participants were adult caregivers, participation in the research was on a voluntary basis. The questionnaires were articulated using words and concepts that are familiar to the respondents.

1.9.4.7 *Legality and competence*

Xu, Cooper-Thomas and Schindler (2011) indicate that universities and professional bodies have codes of ethics for research. All references in this study were cited fully and appropriately to credit the original authors. According to Creswell (2009), competence in research ethics has to do with maintaining and improving own professional competence and expertise through lifelong education and learning, while taking steps to promote the body of knowledge and science as a whole.

The aims of this study were to investigate the extent to which employees in the Namibian health care services have work calling orientation, and to analyse the relationship between work calling orientation, work engagement and burnout in the Namibian health care sector. The research observed the ethical standards of the

Namibian health care system. New knowledge will be advanced by the results of this study. This study was done to advance research and scholarship, and not just to advance the researcher's own career, while simultaneously, avoiding wasteful and duplicative research.

1.9.4.8 *Human subjects' protection*

The ethical treatment of participants includes the prevention from physical harm, discomfort, pain, embarrassment or loss of privacy (Blumberg, Cooper, & Schindler, 2014). The authors expound that the safeguarding of these rights requires an explanation of study's benefits, rights and protection and informed consent.

This study did not pose any harm, but respondents were informed of their rights and they were requested to participate voluntarily in the study. Participants were also informed that they are able to exit from the research process at any time without adverse effects. The expected benefits of this study are the contribution it can make to the existing knowledge, and giving the respondents an opportunity to reflect on their job experiences. This reflection could lead to individuals articulating their strengths and weakness that could lead to channelling their efforts to career progression.

1.9.4.9 *Freedom to withdraw from participation*

Participants were free to withdraw from participation in study for any and all reasons without any negative consequences. This was explained to the participants at the onset of the study.

1.10 RESEARCH METHODOLOGY

Methodology explains the logic behind the research methods and techniques used in the study (Leedy & Ormrod, 2013). Methodology is therefore the thinking guiding the structure of the research, while the methods are the actual procedures followed in the process of research (Walliman, 2011; Welman *et al.*, 2012).

The quantitative methodology used in this study seeks to explain and predict the correlation between constructs and elements of constructs that can be generalised to other groups and places (Apuke, 2017). The study intended to establish and confirm the correlation between work calling orientation, work engagement and burnout, and to develop generalisations that can contribute to existing theories.

The research methodology also explains the number of groups of research participants, methods used in drawing the participants and the process of data collection that is essential for validating the research outcomes (Apuke, 2017).

The research methodology in this study is divided into two phases: the literature review, and the empirical study, which includes the conclusions, limitations and recommendations, as well as areas for future research.

1.10.1 Phase 1: Literature review

A review of the literature on the constructs of work calling orientation, work engagement and burnout was done within the context of health care systems, with a specific focus on nurses. Further, the study paid attention to the interaction of the demographic characteristics with the constructs and respective sub-dimensions.

Step 1: Work calling orientation

Work calling orientation was examined as a positive construct that affects employee productivity and creativity, and is expressed as autonomous motivation in the context of SDT. Work calling orientation contributes to optimal productivity among employees, especially in human services such as health care (Xie, Xia, Xin & Zhou, 2016). The discussion is based on the three sub-dimensions of work calling orientation and their effect on work behaviour among employees. Furthermore, the interaction of work calling orientation with the demographic characteristics of employees were considered.

Step 2: Positive work experience of work engagement and negative experience of burnout

Schaufeli and Bakker (2004) depict work engagement to be the employees' satisfaction with their work and pride in their employer, the extent to which people enjoy and believe in what they do for work, and the perception that their employer values their contribution (Aybas & Acar, 2017).

Maslach and Jackson (1981) depicted burnout as a state of mental weariness in which employees' exhibit exhaustion (fatigue), cynicism (distance or indifference towards work) and professional inefficacy that translates into low productivity (Chaukos *et al.*, 2017; Maslach *et al.*, 2001).

Step 3: Positive work and Organisational Psychology

A critical evaluation was done of positive work and Organisational Psychology, which, according to Seligman (2003), could prevent the onset of psychopathology. It also emphasises that individuals have strengths and potential that can be expressed in well-being, despite working in a challenging environment. Flourishing and functioning well in the work environment result in work engagement, hope or goal directedness, efficacy or cognitive resources, resilience or positive change, and optimism or a positive expectancy of work and life (Wissing *et al.*, 2014). Based on these conceptualisations of the abovementioned constructs, a number of models were used to illustrate the principles and concepts discussed in the literature.

Additionally, the demographic characteristics of gender, age, race/ethnicity, educational attainment, work history, type of organisation, position held, and marital status were considered in this study. Various studies have provided evidence to reflect demographics variables as moderators for work calling orientation (Allan & Duffy, 2014); work engagement (Sharma *et al.*, 2017) and burnout (Gleichgerrcht & Decety, 2013; Van Mol *et al.*, 2015). Finally, these variables influencing work outcomes were discussed.

1.10.2 Phase 2: The empirical study

The research took the form of a quantitative survey design comprising of the eight steps outlined below. Some of the advantages of a survey design are that it is cost-effective and a large number of respondents can be surveyed.

Step 1: Determination and description of the population and sample

Chapter 5 contains a detailed discussion of the determination and description of the population and sample of the study.

Step 2: Choosing and motivating the measuring instruments

The following measuring instruments were used in this study:

- A biographical questionnaire to obtain personal information was used for the statistical analysis of the data, such as gender, age, race/ethnicity, educational attainment, work history, type of organisation, position held and marital status.

- Three quantitative instruments were selected for this study, namely:
 - Work Life Questionnaire (WLQ) (Wrzesniewski *et al.*, 1997)
 - The Utrecht Work Engagement Scale (UWES) (Schaufeli *et al.*, 2002; Schaufeli & Buunk, 2003; Schaufeli & Bakker, 2004)
 - Maslach Burnout Inventory (MBI-HSS) (Maslach & Jackson, 1981; Naudé & Rothmann, 2004)

The measuring instruments are discussed in detail in Chapter 5.

Step 3: Data collection procedure and administration of the measuring instruments.

The responses to each of the items in the three questionnaires were captured in an Excel spreadsheet format. All data were analysed by means of IBM SPSS (version 25) program and AMOS (version 25).

Step 4: Reporting on data analysis

The statistical procedures relevant to this research included descriptive statistical analyses (means, standard deviations and kurtosis); validity and reliability (Cronbach's alpha coefficients), correlational analysis (Kendall's tau_b correlation coefficients); structural equation modelling, and a test for significant mean differences. Chapter 6 deals with the statistical processing of the data.

Step 5: Formulation of the research hypotheses

The research hypotheses were formulated from the central hypothesis to be empirically tested.

Step 6: Reporting on and interpreting the results

The results were illustrated through the use of tables, diagrams and/or graphs and the findings were discussed. The results are reported in Chapter 6.

Step 7: Integration of the research results

The findings relating to the literature review and the findings from the empirical research were integrated to generate and present the overall findings.

Step 8: Formulation of research conclusions, limitations and recommendations

The final step is reflected in Chapter 7. This step relates to the conclusions of the study based on the results and the integration thereof with theory. The limitations of the research were discussed, and recommendations were made in terms of work calling orientation, WE and BO among nurses in the respective hospitals in the Khomas Region in Namibia.

1.11 CHAPTER DIVISION

The chapters are presented as follows:

Chapter 1: Scientific overview of the research study;

Chapter 2: Work calling orientation;

Chapter 3: Work engagement;

Chapter 4: Burnout;

Chapter 5: Research methodology;

Chapter 6: Data analysis;

Chapter 7: Conclusions, limitations and recommendations.

1.12 SUMMARY OF CHAPTER 1

This chapter discussed the background to and motivation for the research study, the problem statement, the objectives of the study, paradigm perspective, the theoretical research and its design and methodology, as well as the central hypothesis and the research methods applied in the study. To the best of the researcher's knowledge no previous study has been conducted on the interrelationship of work calling orientation, work engagement and burnout in the Namibian context. It is hoped that this study will furnish in-depth insight into the interaction of the three constructs and their effect on the demographic characteristics, as well as contribute to the existing body of knowledge in this field of study.

Chapter 2 addresses the conceptualisation of work calling orientation in the work environment.

CHAPTER 2: WORK CALLING ORIENTATION

2.1 INTRODUCTION

The literature review of this study is divided into three sub-chapters according to the three main topics of investigation, namely, work calling orientation (WCO), work engagement (WE) and burnout (BO), specifically in relation to nurses. The literature review will conclude with an integration of the research discussions and a theoretical framework of the three constructs under study.

This chapter focuses on work calling orientation as a construct, with the three sub-dimensions of calling, job and career orientations (Dik & Duffy, 2009; Ponton, Brown, McDonnell, Clark, Pepe, & Deykerhoff, 2014). It is associated with intrinsic motivation and self-determination, and the constructs of competency, relatedness and autonomy (Ryan & Deci, 2000) as expounded by the Self-determination Theory (SDT).

This chapter serves to contextualise the current study by outlining the meta-theoretical context that forms the definitive boundary of this research. The chapter also deals with the general construct of work calling orientation in various different perspectives.

2.2 HISTORICAL DEVELOPMENT OF THE CONSTRUCT

The role of work in human life has been conceptualised in different ways. A historical account by Ponton *et al.* (2014) suggests that work is commonly regarded as toil, as a mere means to an end, or as an unpleasant activity which people would avoid if only they could. The Ancient Greek philosophers, Plato and Aristotle viewed work as a 'lower' activity, catering only to lower needs, whereas they regarded a fully human life as a life of reason that requires exemption from physical labour (Ponton *et al.*, 2014). In contrast, Marx and Hegel recognised work as a productive and creative activity that can and should be fulfilling, an expression and confirmation of our creative powers, not simply a means to an end but an end in itself (Sayers, 2005).

Work calling orientation was initially associated with the religious calling of God to a vocation (Duffy & Sedlack, 2010). However, the term has been used to refer to both religious and non-religious career paths and jobs. Ponton *et al.* (2014) posit that calling and vocation apply to work roles which involve individual evaluation of the purpose

and meaningfulness of job activities that contribute to the mutual benefit of society. They view calling and vocation as embodying the process of career choice, connecting work activities to an individual's overall sense of purpose and meaningfulness regarding pro-social results (Xie *et al.*, 2016).

The idea that a full range of activities can be viewed as a calling or vocation dates back to the 16th century when Protestant reformers, reacting against religious devaluation of all earthly occupations, developed the idea that earthly occupations actually also hold spiritual significance (Dik & Duffy, 2009; Xie *et al.*, 2016). In their study on balancing career and motherhood, Oates, Hall, Anderson and Willingham (2008) postulate that individuals may have multiple callings in the context of networks of relationships that can lead to both positive and negative outcomes. In general, the relationship that individuals have with work can bring out the best or the worst of them.

Wrzesniewski *et al.* (1997) established that individual subjective experiences of work may be a function of stable individual traits that interact with the characteristics of work. The aforementioned authors further argue that people consider their work either as a calling from which they get personal fulfilment, growth and financial reward, a job from which they derive material benefits, or a career in which they have deeper investments that lead to material gain and occupational advancement.

Wrzesniewski *et al.* (1997) found that a person's interpretation of 'calling' has a significant impact on their performance at work and on their well-being. Additionally, they observed that intrinsic motivation is more often associated with a calling, while extrinsic motivation is often associated with a job or career orientation. In assessing work as a calling (Duffy, Autin, Allan & Douglass, 2015) confirm that work contributes to more than one third of an adult's waking life, with varying levels of job satisfaction, which in turn contribute to quality of life.

Based on the above, and Emerson's (2017) definition of the attributes of a nurse called in the profession, it can be argued that nurses who consider their profession as a calling may be more intrinsically motivated and self-determined than those who consider their profession to be a job or career. These individuals are most likely to perform better and experience positive work outcomes than those who view their work as a job or who are not living out their calling. Nurses who view their work as a job or

career may also work hard and perform, as long as they continue to value the material benefits and the career growth they experience in their work.

2.2.1 Work calling orientation and self-determination theory

The SDT posits that all people have an innate need for autonomy, competence and relatedness (Ryan & Deci, 2000). The SDT is a macro theory of human motivation and personality regarding an individual's inherent or intrinsic growth tendencies and innate psychological needs. Satisfaction of these needs affects individual motivation, development and well-being. Ryan and Deci (2000) also acknowledge that the human spirit can be diminished or crushed, causing individuals to reject growth and responsibility. Such individuals become passive, apathetic, alienated and irresponsible. Moreover, autonomously regulated behaviours are thought to result in better work outcomes, since those behaviours involve greater need satisfaction (Ryan & Deci, 2000). The more autonomously motivated the individuals are, the more likely they are to put effort into their work.

Thus, SDT suggests that autonomous motivation (self-determined motivation) facilitates effective performance and well-being, while controlled motivation can detract from those outcomes, particularly if the task requires creativity, cognitive flexibility, or deep processing of information. Additionally, Emerson (2017), and Meyer and Gagne (2008) advance the idea that certain job characteristics affect job satisfaction only via autonomous motivation, whereas controlled motivation has no relationship with it. Human beings are curious, self-motivated and inspired to learn and extend themselves to master new skills and apply their talents responsibly. For nurses this would mean that one would be self-determined and motivated to choose to become and remain a nurse (Emerson, 2017). Individual nurses who are self-motivated would be expected to perform better at their jobs and would be less likely to suffer negative effects, such as burnout.

The SDT is used to explain the human drive to satisfy the three basic psychological needs of competence (feeling capable of completing work-related tasks), relatedness (feeling supported by the people one works with) and autonomy (feeling that one is the initiator of work-related actions) (Gagne & Deci, 2005; Ryan & Deci, 2000; Zhang, Liao, Yan & Guo, 2014).

Relatedness is related to significance in work calling orientation and with professional efficacy, which is the opposite of the professional inefficacy found in burnout. In this study, employees who are self-determined are expected to identify their work as a calling, and score high on work engagement and low on burnout. Employees with a lot of work experience are expected to develop in their profession, and are therefore expected to have high professional efficacy, consequently gaining better rewards; they will also be more mature in age and more likely to identify themselves with the profession than young, inexperienced employees (Zhang *et al.*, 2014). The constructs of competence, relatedness and autonomy are also aligned with other theories, such as the Cognitive Evaluation Theory or Action Regulation Theories of human motivation (Gagne & Deci, 2005).

According to SDT, internal motivation and the external environment combine to satisfy the basic individual human needs, of which the key factors are to promote self-determination and motivation (Gagne & Deci, 2005). SDT expounds on the extent to which an individual's behaviour is self-motivated or self-determined. According to Gagne and Deci (2005), SDT differentiates extrinsic motivation into types that differ in the degree of autonomy, and that have been widely used in the education, sports and health domains.

The assumption of the current study is that nurses who perceive their work as a calling, are self-determined and intrinsically motivated to choose, and remain within the nursing profession autonomously, not because of a lack of better job opportunities. These individuals will strive to improve their competence (aiming for higher performance and creative ways of solving problems) and seek and give support to others, as the needs arise.

2.2.2 Work calling orientation and motivation

A study into the types of motivation among volunteers from different organisations (Bidee *et al.*, 2013) suggested that the more autonomous, or self-determined, and internally motivated volunteers are, the more likely they will be to dedicate effort towards their volunteer work. The volunteers in their study volunteered out of interest, rather than because they experienced any external pressure. In other words, individuals who volunteered for jobs they felt drawn to found the tasks to be intrinsically enjoyable and meaningful, and perceived them to be central to their personal identity

(Wrzesniewski *et al.*, 1997), rather than doing it for material gain, career progression or any other reason. Bidee *et al.* (2013) further argue that autonomous motivation leads to desirable work outcomes, such as high job satisfaction, well-being and good health, regardless of the type of organisation.

Among nurses, autonomous motivation could be perceived in the nurses choosing and staying in the nursing profession over a lengthy period and enjoying positive work outcomes. Nurses with autonomous motivation are therefore more likely to experience higher job satisfaction, well-being and good health (no burnout) (Bidee *et al.*, 2013; Gagne & Deci, 2005; Wrzesniewski *et al.*, 1997). They act autonomously (out of free choice), and are more likely to stay in the profession, gaining much experience and moving higher in the career rankings.

Intrinsic motivation is described by Ryan and Deci (2000) as the inherent tendency to seek out novelty and challenges, to extend and exercise one's capabilities, and to explore and learn. Seeking challenges and expanding individual capacity to discover and learn is similar to being drawn to pursue intrinsically enjoyable and meaningful tasks, and is also similar to aspects of the WCO described by Emerson (2017 and Wrzesniewski *et al.* (1997). Furthermore, individuals are drawn to seek and persist in performing activities resonating with their abilities, behavioural interests and social comfort (Dobrow, 2013). An example can be seen in the natural inclination of children to be curious, seek opportunities to play, assimilate and master those activities in the absence of specific related rewards.

Intrinsic motivation is thus the natural inclination towards assimilation, mastery, spontaneous interest and exploration that are essential to individual development, and leads to enjoyment and vitality throughout life (Gagne & Deci, 2005). Intrinsic motivation implies that autonomous or self-determined motivation encompasses the pursuit of actions that agree or are consistent with the underlying self. Hence, actions emerge from individual deep values, goals and interests (Gagne & Deci, 2005; Graves & Luciano, 2013).

Self-determination is an antecedent of self-esteem in which individuals are willing to exert considerable effort to acquire new or better competencies (Hein & Caune, 2014), or in which the passion and enjoyment found in work calling orientation is present

(Dobrow, 2013). In physical education, Hein and Caune (2014) found that social factors (teacher support and learning environment) influenced motivation (through autonomy, competence and relatedness) and this led to cognitive, affective and behavioural changes in learning.

A study on organisational socialisation by Zhang *et al.* (2014) concluded that perceived supervisor support positively correlates with new employees' proactive adjustment, quality of social integration and job performance. The authors also found that employees who are oriented towards the higher learning objectives have stronger intrinsic motivation and exhibit more feedback-seeking behaviour than others do. This, in effect, satisfied the employees' self-determination needs and moulded their social behaviour.

This implies that self-determined nurses are intrinsically motivated to acquire new and better competencies, while building higher self-esteem and performing better at their jobs. Nurses with high work calling orientation scores also tend to report a higher sense of passion and enjoyment that in turn, contributes to other positive work outcomes, such as higher levels of satisfaction (Duffy *et al.*, 2015).

2.3 CONCEPTUALISING WORK CALLING ORIENTATION

Wrzesniewski *et al.* (1997, pp. 22-25) defined calling as an "occupation that individuals feel drawn to pursue, which they expect to be intrinsically enjoyable and meaningful, perceiving it to be a central part of their identity". Having a calling is referred to as a "discerned, conscious calling" by Dobrow (2004, pp. 1-2), with characteristics that include consciously viewing work as a calling which the individual chooses to respond to.

Living a calling includes having a sense of passion and enjoyment in one's work over a certain period of time. According to Dobrow (2013), the term 'work calling orientation' is secularised to indicate that individuals choose to work in a particular domain to which they feel called rather than answering an external higher calling. Dobrow (2013, p. 433) views calling as a "psychological construct that exists within individual minds and reflects the sentiments people experience toward a work domain". Additionally, work calling can change over time and be moulded by antecedent factors, such as the

individuals' abilities, behavioural involvement and social comfort in the area toward which they feel a calling.

There is, however, a difference between having a calling and living a calling. People may perceive a calling towards a particular work domain but are hindered from living the calling, due to reasons such as poverty, economic conditions, a hostile work environment, discrimination, or individual disability that may hinder persons from freely making work choices that align with their calling (Dik & Duffy, 2009). Dobrow (2004) spells out that having a calling contains some urgency or need to do the job in which the individuals have domain-specific self-esteem. Research revealed that living a calling correlates more highly with well-being and work-related outcomes than perceiving a calling, and results further show that living a calling moderates the relation between perceiving a calling and job satisfaction (Duffy *et al.*, 2013; Duffy *et al.*, 2015).

In weighing the vocational and ministerial competency development among college students, Riem (2003, p. 80) defines work orientation as a “sense of self as an agent called into being and called into ministry with and for others”. He argues that vocational calling is a process in which individuals develop understanding of their own gifts, strengths, weaknesses, predispositions and susceptibilities (woundedness) that lead to identifying their roles, values and priorities in the community. Hall and Chandler (2005) define work calling orientation as work that individuals perceive as their purpose for life that may arise from religious beliefs or from an individual sense of self and meaning.

Dobrow (2013, pp. 3-4) also describes “vocational calling as a sense of passion or deep enjoyment and satisfaction within a specific work domain that gives individuals a strong sense of identity”, while Gales and Lenz (2013, p. 241) identify an “urgent need to act with a sense of destiny”, as if one’s life purpose is dependent on the work. Gales and Lenz (2013) also posit that while a calling is applicable to specific employment, it transcends the boundaries of jobs and includes purposeful and meaningful involvement on the part of the individuals.

A diagrammatic representation, illustrating WCO and three sub-dimensions, is shown in Figure 2.1 below.

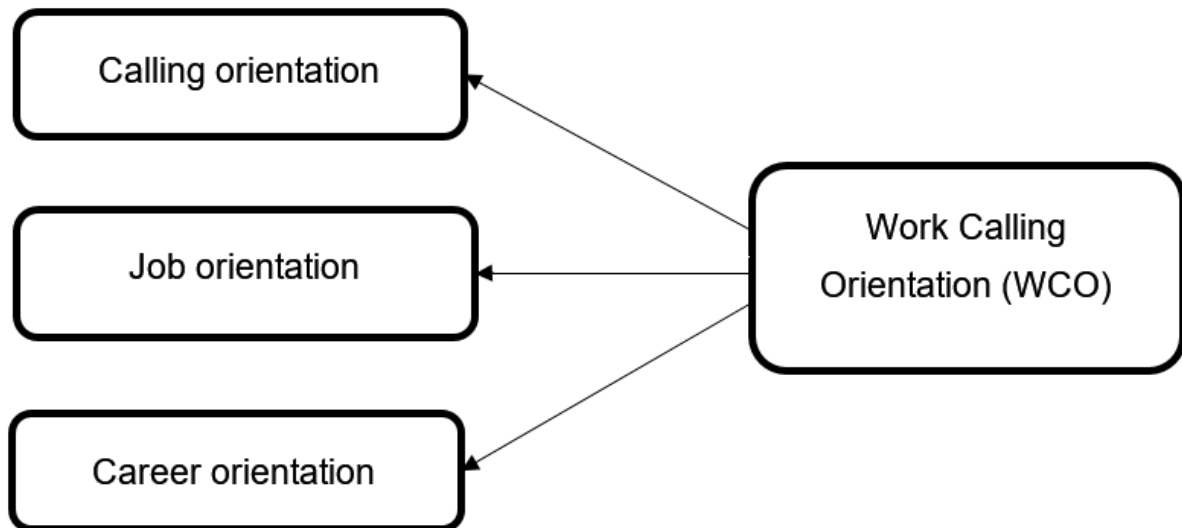


Figure 2.1:
Work calling orientation with sub-dimensions

WCO has been studied from different perspectives. Research by Wrzesniewski *et al.* (1997, pp. 22-25) conceptualises calling orientation as an “occupation which individuals feel drawn to pursue, expecting it to be intrinsically enjoyable and meaningful as a central part of their identity”. Individuals with a clear sense of work calling orientation tend to have a better life and work satisfaction than those who do not have a clear orientation (Shea-van-Fossen & Vredenburg, 2014).

Research proposes that calling orientation is associated with benefits, such as a perception of a better life, health and job satisfaction (Hall & Chandler, 2005; Wrzesniewski *et al.*, 1997). Calling orientation has been consistently found to relate to life meaning, employee satisfaction, purpose, humanity, external summons (prompted by an external force), and pro-social orientation (Dik & Duffy, 2009). For example, when facing unfamiliar or difficult task situations, nurses with a sense of purpose may be more likely to manage temporary setbacks or failures because they may have a strong belief that, ultimately, they will succeed.

In a study of counsellors, specifically into the person-environment fit and career satisfaction, Rehfuss *et al.* (2012) found that counsellors who experienced high career satisfaction were employed in organisations that met their needs and reflected their values. However, Van Zyl, Deacon and Rothmann (2010) postulate that satisfaction is mediated by work role-fit. As indicated, satisfaction can be enhanced by having a

calling orientation (Dik & Duffy, 2009) and an individual perception of identity (Wrzesniewski *et al.*, 1997).

There are two types of identity that come to the fore. The first type encompasses idiosyncratic personal characteristics, such as the abilities and interests that individuals are confident and happy with (Griepentrog, Harold, Holtz, Klimoski & Marsh, 2012). The second type refers to the self-categorisation of belongingness to an organisation, a career identity and the confidence, in association with a particular group or profession (Willettts & Clarke, 2014). Identity is part of an individual's strength that is helpful in expressing calling by means of the use of strengths and aptitudes. For nurses, identity would be an individual nurse's abilities and interests, and the sense of belongingness to the nursing profession and organisation employed in.

In their research on calling and self-confidence (Hall & Chandler, 2005) suggest that self-exploration and discernment are required for individuals to articulate a clear sense of identity or self-awareness. A clear sense of identity leads to clarity of values, life purpose, and aptitudes or gifts, which are important in having a calling.

Hall and Chandler (2005) identified several factors that affect calling and that result in objective and subjective perceptions, such as self-confidence (self-identity) or the belief that one has what it takes to perform, the ability to set goals and make efforts to achieve them, and the degree of privilege and resources available to an individual (social economic status). For example, during an economic recession, individuals may not seek opportunities for growth if they come from a poor economic background, whereas those with resources may continue to seek calling opportunities. The aforementioned authors also stress self-confidence as an important factor that promotes a person's adaptability, and helps an individual to gain clarity of identity. This is important for adaptation, especially in a changing work environment.

For nurses, individual self-confidence can lead to a success cycle, with career goal achievement, better performance and job security, even in times of economic recession that might limit the resources to enact a calling.

2.4 SUB-DIMENSIONS OF WORK CALLING ORIENTATION

The construct of work calling orientation can be further demarcated into different types. Wrzesniewski *et al.* (1997) recognised that people with a calling orientation are more likely to find their work psychologically meaningful, will adapt their duties and advance relationships to make their work better and meaningful. This view is upheld by other scholars, such as Dobrow (2013), Dobrow and Tosti-Kharas (2011), Gales and Lenz (2013), and Thompson and Fedman (2010).

Each type of orientation describes the meaning people attach to their work. The calling can be experienced in relation to a work domain, an organisation, or a profession, such as nursing. Callings have been categorised into job orientation, career orientation and calling orientation, as discussed below.

2.4.1 Calling orientation

Employees with a calling orientation define their work as “essential to their lives and their uniqueness” (Wrzesniewski *et al.*, 1997, pp. 22-25), feel that “work resonates with their values and beliefs” (Riem, 2003, p. 80) and provides both “meaning and community benefits” (Dik & Duffy, 2009, pp. 430-431; Gales & Lenz, 2013, p. 241). Individuals with a calling orientation “view their work as a form of self-expression, and derive personal fulfilment from performing tasks” in the work domain (Dobrow, 2013, p. 433).

In an earlier study, Dobrow (2004) noted that viewing work as an integral part of life, deriving one’s identity from work, and attaining personal fulfilment from tasks does not exclude other factors, because individuals with a calling orientation might also aspire for a good salary and rewards. However, people with a calling orientation responded that they are likely to choose to perform their work, even if they were not paid (Dobrow, 2013).

The assumption of the current study is that nurses with a calling orientation view their work as a fundamental part of their existence and uniqueness. It is expected that they view their profession as a form of self-expression and personal fulfilment, which in effect, contributes to their social identity, this being important to individuals with a calling orientation.

Individuals with work calling typically love and value what they do, and believe that they play an important role and contribute to the well-being of society (Dobrow, 2004; Emerson, 2017). They tend to take their work with them and talk about it to others because they believe that they create a better world through their work. It is also possible to find individuals with the three types of orientation in their work, especially in the field of human services, such as medical technicians, teachers, secretaries, and so forth. (Wrzesniewski *et al.*, 1997; Rothmann & Hamukang'andu, 2013) and, as may be found in the present study, nurses.

2.4.2 Job orientation

Job orientation is defined as the extent to which individuals tend to consider their work as a means to an end. Individuals with a job orientation perform their duties to receive a salary or benefits to sustain their families, hobbies, or other life activities outside work (Wrzesniewski *et al.*, 1997, pp. 22-25). They prefer work activities that do not hinder their individual lives. They are unlikely to have a robust association with the workplace or their work duties. The work helps them to gain the basic necessities of life.

In contrast, Dobrow and Tosti-Kharas (2011), in developing a scale to measure calling, interviewed members of the New York Philharmonic Orchestra to determine why individual musicians seek and derive significance from work and life. They found that performing music is not like other jobs because it engrossed and encompassed the lives of the musicians. Dobrow and Tosti-Kharas (2011) also reported that individuals with a job orientation view their job as a small part of their identity, a stepping-stone to other opportunities, where motivation comes from external rewards such as pay, the job itself not being central to the individual's life.

In summary, Wrzesniewski *et al.* (1997) describe the three work orientation categories as jobs, careers and callings. People with a job orientation work to earn the resources (money and benefits) they need to enjoy their lives outside of work, rather than for the intrinsic satisfaction of performing their jobs. These individuals would not recommend their work to friends, and long to get away from their jobs (Wrzesniewski *et al.*, 1997).

2.4.3 Career orientation

Career-oriented individuals are more likely to focus on the elements related to success or prestige. They will be interested in moving upward in their careers, receiving salary increases and new titles, and achieving the social standing associated with success in their career (Wrzesniewski *et al.*, 1997, pp. 22-25). Careers that have a clear progression from entry to the highest level are more appealing to individuals with a career orientation.

According to Kim, Han and Kim (2014), the goals of health care professionals are inherently ethical, protecting patients from harm and providing care. They point out that developments in medical technology, and changes to the nursing profession have increased nurses' participation in situations involving human rights, and particularly, life or death decisions. In professional practice, nurses are challenged when faced by patients with conflicting values from different cultures, especially if an enabling work environment is lacking, where ethical dilemmas mean choosing between unsatisfactory alternatives (Kim *et al.*, 2014; Beukes & Botha, 2013).

In a study among undergraduate students, Gales and Lenz (2013) established that having a sense of calling positively influences individual decision-making ability, and increases career goal-oriented behaviour. Effective decision-making abilities in nursing are crucial for the effective delivery of services (Kim *et al.*, 2014; Beukes & Botha, 2013). A study on the reduction of medication errors by Mills, Neily, Mims, Burkhardt and Bagian (2006) observed that system failures that lead to medication errors may be prevented by the improvement of nurse decision-making processes. Additionally, the level of nurse support, anticipating and addressing the challenges of equipment availability at service level can help to improve the quality of nursing care (Mills *et al.*, 2006). These authors further contend that decision-making is an important nurse competency that has a direct effect on the quality of nursing care. This view is supported by Pirret, Neville and La Grow (2014:716) in their comparative study which concluded that "nurse practitioners' diagnostic reasoning abilities compared favourably to those of doctors in terms of diagnoses made, problems identified and action plans proposed from a complex case scenario".

Although the scope of practice for American nurse practitioners may be different from that of nurses in Namibia, the decision-making competency of the Namibian nurse is still an important competency for effective nursing care.

Pirret *et al.* (2014) also posit that career-oriented individuals may like their work and may be motivated by income and other benefits derived from their work. These individuals are inspired by attributes such as power, responsibility, advancement, and monetary rewards that may come with the positions they hold.

2.4.4 Vocational callings

The term ‘vocational development’ involves the “improvement of the inner self, viewing the individual as an agent called into being with and for the good of others” (Riem, 2003, p. 80). Some authors use this term interchangeably with calling orientation, more so in education. In their assessment of a career counselling course, Ponton *et al.* (2014) explain that vocation is frequently used synonymously with calling orientation which is defined as the connection between “individual gifts and talents on the one hand, and the world's needs on the other”. They speculate that in career counselling and decision-making, individuals are increasingly concerned with personal calling, life purpose and serving a greater good in both secular and non-secular institutions.

According to Schaap, De Bruijn, Van der Schaaf and Kirschner (2009, p. 482), “vocational calling in education can be described as education that prepares students for jobs in the real world of work by providing the knowledge, skills and attitudes required for effective performance” in a specific domain. Students learn about professional norms, values and processes implicitly while performing tasks in a real-life workplace. Schaap *et al.* (2009) postulate that becoming a professional means constructing a Personal Professional Theory (PPT), in which the different types of knowledge, such as formal knowledge, practical knowledge, work-process knowledge, shared knowledge, norms, values and beliefs of a PPT are internalised.

Vocational training involves internships during which, for example, students are expected to adapt and internalise the cultural features of a particular occupational domain. An expansion of PPT can therefore be used to analyse the development of students’ personal professional knowledge during education, training and/or internships. Curricula are based on the core competencies required by the qualification structures and profiles, in line with national economic needs (Schaap *et*

al., 2009). For example, as teacher training includes practical attachments, individual teacher competence includes personal, contextual and tacit knowledge, which is based upon experiences that motivate their actions. However, at admission into training, there is very little focus on individual characteristics, including work calling orientation that allows one student to choose studies in a particular domain as opposed to another. Phillips (2011) posits that vocational calling transcends job boundaries to include the purposeful and meaningful involvement of the individual.

In the integrated career model, Dobrow (2004, p. 3) views “vocational calling as purposeful and meaningful individual involvement in work applicable to specific employment, transcending the boundaries of jobs or organisational context”. Thus, work is consciously viewed as a “calling to which we choose to respond; serves community (not just self and family); deciding to follow a path involves discernment (listening, reflection, and perhaps prayer) to find the right path; it supports discovering the true self; and involves using your charisms” (gifts) for the common good (Dobrow, 2004, pp. 3-5).

Additionally, Emerson (2017) identifies some key components of calling as passion or deep enjoyment while engaging in one’s work. Other elements of an integrated calling are identity, the need for urgency, a sense of destiny, and engulfed consciousness (being consumed by one’s work), the desire to do meaningful and gratifying work and domain-specific self-esteem (Dobrow, 2004).

Earlier, Warnath (1975) contended that with adequate motivation and guidance every individual can progress through the educational process to satisfy the job goals that allow for the expression of individual personality characteristics. His assumption was that every job must be intrinsically satisfying, otherwise people would not remain in the job for long (Emerson, 2017). This may not be realistic, especially in Africa with its high unemployment levels. Satisfying job characteristics may have been more common in medieval times but this may not necessarily be the case in the modern mechanised era (Beukes & Botha, 2013).

Although nursing jobs have the potential for providing employee happiness and job satisfaction, job design and other interfering organisational factors may not promote the necessary satisfaction (Perry, Rech, Mavhu, Frade, Machaku, Onyango & Njeuhmeli, 2014).

2.4.4.1 Vocational callings and spirituality

While the modern sense of calling (Ponton *et al.*, 2014) may have lost the religious connotation, it has found a positive correlation between career orientation and religiousness. Emerson (2017) contends that health care has an element of spirituality in that the relationship between patient and clinician must withstand periods of intense stress and anxiety, requiring inner commitment and active engagement with transcendental ideals. The sense of transcendental meaning causes clinicians to treat patients with respect and dignity, not only because it is good and right, but also because of the sense of obligation that goes beyond the individual caregiver (Emerson, 2017). This is in line with self-regulation and significance, as described by Wrzesniewski *et al.* (1997) and confirmed by other studies, such as those of Dobrow and Tosti-Kharas (2011) and Duffy *et al.* (2012).

Emerson's (2017) study on vocation as a personal calling found that measures of vocation correlated positively with a sense of ideological and interpersonal identity. Although the present study does not focus on spirituality, the demographics responses of respondents will be analysed in relation to their calling identifications, which may have its origins in spirituality.

To answer the question whether an individual can have multiple callings, such as a career and job calling at the same time, a study by Xie *et al.* (2016) suggest that certainty and commitment to one's calling is associated with a sense of adaptive coping and reduced levels of stress. Their study focused on women who pursued both motherhood and a career away from home. Xie *et al.* (2016) propose that individual spirituality, role quality and spouse support can mediate inter-role conflict.

Feemster (2007) argues that spirituality lies at the core of law enforcement, guiding individual intuition, emotion, ethics and stress-coping strategies. He contends that a call to vocation does not take energy from an individual but rather gives energy and life. A vocation, he adds, is an expression of the real self and what the individual is called to do. Working in a job that an individual views as a vocation, sets the person free to be who that person is called to be by extending personhood and contributing to other people's lives (Feemster, 2007).

Byrne, Morton and Dahling (2011) argue that religion and spirituality are important components of people's lives that inform their feelings, thoughts, and behaviours while

at work. An understanding of the interplay between organisational and religious expectations affects employees' emotional display towards others, and determines the religious support and beliefs that buffer the negative effects that emotional labour can have on individual employees (Görgens-Ekermans & Brand, 2013).

In addition, Miller and Ewest (2015) suggest a framework that describes business actions and attitudes towards workplace spirituality and religion. The framework identifies four organisational methods to address religion and spirituality at work, namely, faith-avoiding, faith based, faith safe and faith friendly, as part of organisational culture. The results of Miller and Ewest's (2015) study indicate that an understanding of one's vocation positively correlates with actualising one's identity, and negatively correlates with confusion. Identity attainment was important for individuals to better understand the self, pursue a purposeful career, and have a greater understanding of God's will and call for one's life (Miller & Ewest, 2015).

The assumption of the present study is that every individual is called into economic activities (where individuals expend their gifts and talents) and social activities (where individuals are also members of families and communities), and they therefore have multiple callings. Individuals identify themselves as professionals and as members of families and communities. Similarly, nurses may have a work calling, and at the same time, feel called to be mothers/fathers, spouses and siblings (Miller & Ewest, 2015). These roles are enacted concurrently or at different times in the work life of nurses.

As previously discussed, the most desired situation is for nurses to view their jobs as a calling, where they choose to join and remain in the profession because it aligns with their personal values and interests, regardless of the challenges associated with making such a choice (Miller & Ewest, 2015). It is anticipated that there may be some nurses who will score higher on job calling and career calling than on WCO.

2.5 CHARACTERISTICS OF CALLING ORIENTATION

In addition to explaining how individuals feel when they have a calling, the construct of WCO adopted in the present study, and as described by Duffy and Dik (2012), comprises different characteristics that include significance, satisfaction and self-regulation. Significance refers to the "positive feeling individuals have when they perform tasks they believe have an impact on others" (Barrick, Mount & Li, 2013, p.

137) and where individual needs are met. Satisfaction may be either “life satisfaction or job satisfaction” (Duffy et al, 2013, pp. 40-42). Self-regulation “overrides or disregards spur of the moment impulses to respond to life situations” in a healthy manner (Lisjak & Lee, 2014), as discussed below.

2.5.1 Significance

Hibberd (2013, p. 672) defines life significance as “an aspect of meaning that assigns value to a goal, relationship or aspect of life that exists in the present and future”. In this study, the concept of significance is considered from two perspectives: Firstly, life significance is used interchangeably with “life meaningfulness, and secondly, task significance as the work outcomes that have important outcomes on people” (Barrick *et al.*, 2013, p. 137).

However, the element of significance or meaningfulness for calling orientation involves the nature of “one’s being and existence” (Duffy & Dik, 2012). Perceptions of significance based on “individual personality, values and interests affect the extent to which work activities become meaningful and motivational” (Barrick *et al.*, 2013, p. 137). The aforementioned authors further argue that job characteristics, such as degree of autonomy and variety can facilitate or constrain the enactment of personality traits in the pursuit of higher-order goals.

It is important for nurses to experience a sense of significance and meaningfulness when performing their duties, since this has an important effect on patients, and contributes to a better quality of health care and life.

2.5.2 Satisfaction

Douglass, Duffy and Autin (2016) define life satisfaction as the “global positive emotional reactions and attitudes (resulting from career commitment and life meaning)” that people have towards their work. This also includes occupational or job satisfaction, which is viewed as consisting of features of gratification with various aspects of an occupation” (Duffy & Dik, 2012, pp. 430-431).

In their study among employed and self-employed people, Hytti, Kautonen and Akola (2013, pp. 2034-2035) clarify “job satisfaction as the pleasurable and positive emotions that result from job experiences, while for self-employed individuals it is

measured through entrepreneurial success, representing business success and associated with the creation and maintenance of employment”.

Life satisfaction refers to “people's affective and cognitive evaluations of their lives, with regard to well-being” (Vittersø, Biswas-Diener & Diener, 2005, p. 328). Life satisfaction is closely associated with employee wellness and personal fulfilment (Steger, Dik, & Shim, 2012), while job satisfaction is strongly related to job performance and career goal achievement (Duffy *et al.*, 2013). Duffy *et al.* (2013) further suggest that living out what the individual perceives as a calling provides meaning to life, commitment to work, and increased job satisfaction.

As life satisfaction is related to individual well-being, and job satisfaction is related to job performance and career goal achievement, both are essential for nurses. When an individual is satisfied, they perform better and achieve both personal and organisational goals. This can be expected to have a positive impact on the quality of nursing care. This study will evaluate the extent to which nurses in the Khomas Region in Namibia perceive and experience WCO, and the extent to which that experience affects their life and job satisfaction.

Mathur *et al.* (2011) conclude that employee satisfaction with task variety is related to occupational viewpoints, gratification with working conditions, and (to a smaller extent) to workload. This allows managers to impact the feeling of satisfaction by modifying the job and work environment. Steger *et al.* (2012) established that work should add value to employees' lives, provide a means of making a living, be a way to occupy an individual's time, an opportunity to satisfy personal achievement, satisfy growth needs, and have a positive impact on society. In ideal situations, work should also be enjoyable and provide an appropriate level of challenge for individual strengths and weaknesses. Consequently, work should contribute to the health and equity of organisations, communities and societies.

Xerri's (2014) study on organisational justice, job satisfaction and innovation among nurses, concludes that the discernment of fairness concerning workplace associations has a superior influence on job satisfaction, if compared to the perception of impartiality concerning company policies and procedures. Furthermore, Xerri (2014) argues that nurses view procedural fairness as a direct incentive to their innovativeness and creativity.

Overall, people who discern fairness in workplace interactions, company policies and procedures are more likely to respond positively to the organisation. Hospital managers should therefore be aware of the need to improve interactional and organisational policies and procedures to improve nurses' satisfaction and innovation. This process will also, more likely, necessitate alterations to the relationship between supervisors and subordinates.

2.5.3 Self-regulation

Self-regulation is the process of overriding or altering individual spontaneous and impulsive responses. It impacts the achievement of valuable, wholesome and virtuous goals such as "individual health, better academic performance, and preserving loving associations" (Lisjak & Lee, 2014, p 56; Booker & Mullan, 2013, pp. 746-747).

Therefore, self-regulation is the ability to choose and act consistently according to an individual's best interests and values. Individuals yield to impulses and engage in maladaptive behaviour when their self-regulatory resource is depleted (Lisjak & Lee, 2014). Rothmann and Hamukang'andu (2013) established that individuals with a calling consistently chose to perform tasks, and to develop creative problem-solving strategies to deal with challenges.

Self-regulation is important for nurses to choose to, and then to act professionally, both for personal satisfaction and for goal achievement. They are required to make high-level decisions for the effective interaction with patients and for patient care.

Social self-regulation helps people make clear group expectations and requirements in choosing the courses of action that are congruent with these expectations and requirements (Guillaume, Knippenberg & Brodberck, 2014). In a study on cultural dissimilarity and performance in work teams, Guillaume *et al.* (2014) propose that feeling confident about oneself and people, allow for interactions with others to be regarded as important, and provides assurance about what to expect from them and clues on how to behave. This also leads to people's understanding, predicting and controlling their shared environments. Additionally, the aforementioned authors posit that there is a sense in which self-regulation is more important for the performance of employees with a lower cultural status level, than for employees at the other end of the scale. According to Guillaume *et al.* (2014), individuals with a lower status have a higher need for affirmation and belongingness, than individuals with higher status

levels. Since their study focused on cultural dissimilarity and team performance, it is not known whether the individuals who self-regulated persisted in making a career choice, for example, to be a nurse, and whether they would exhibit the same tendency to need affirmation and belongingness.

Booker and Mullan (2013) argue that intention and behaviour patterns are not sufficient for explaining self-regulation, because people may fail to act on their intentions, even when positive outcomes are expected. The abovementioned authors give an example of individuals who have the best intention of stopping addictions or risky behaviour that could be damaging to their health, yet fail to stop at all, or stop but fail to sustain the change.

As a result, Booker and Mullan (2013) suggest a model of self-regulation that includes a supportive environment for effective behaviour change. The model incorporates factors that affect choice and the maintenance of health or healthy behaviours to include immediate possibilities, rather than the long-term outcomes, as reflected in Figure 2.2 below.

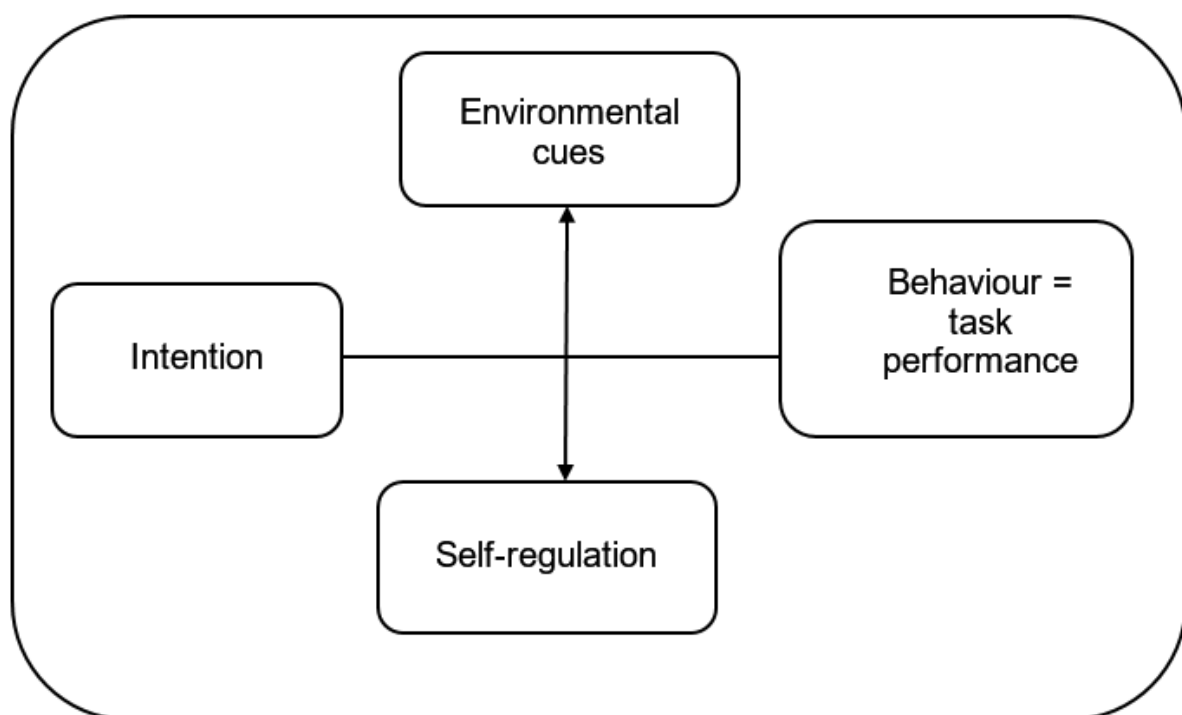


Figure 2.2:
Self-regulation model

Source: Adopted from Booker and Mullan (2013)

The motivation to engage in or avoid specific behaviours is affected by the immediate costs, and by the value individuals place on the goal they are trying to achieve. Behavioural strength and pre-potency, according to Booker and Mullan (2013), involve unconscious yet significant factors, such as environmental cues, biological pre-dispositions and past behaviours that moderate the behaviour-intention relationship. Booker and Mullan (2013) further propose that adherence to a healthy lifestyle requires planning, the ability to adapt to changes in the environment, and to inhibit responses to unhealthy or unsupportive cues in the environment. For example, a healthy lifestyle requires an individual to choose to eat healthy foods, exercise regularly and to get adequate rest. This implies that individuals must choose not to eat easily accessible unhealthy foods, must exercise frequently regardless of discomforts, and plan sleeping time effectively.

For nurses, whose intention to perform is moderated by self-regulation, the behaviour within a favourable work environment is important to ensure the provision of quality nursing care.

Studies on the motivational basis for the cognitive determinants of addictive behaviours, hypothesise that individual use and disuse of substances is dependent on expectations (Cox, Klinger & Fadardi, 2015). They argue that if a person expects that drinking alcohol or using another addictive substance will produce a positive effect or reduce negative effect, they are more likely to take the substance. Individuals therefore select goals related to the substance, based on the likelihood that desirable outcomes will occur if the substance is used. Motivation is the internal and unconscious processes that instigates, energises and directs behaviour until a goal is achieved (Cox *et al.*, 2015).

For nurses, internal drivers would lead individuals to choose, persist and energise their choice of career. Meanwhile, the goal would be improved job performance (outcomes) and good relations, including effective patient care and career progression. The process of goal pursuit activation may be conscious or unconscious (Cox *et al.*, 2015).

In their study on fostering experiential self-regulation in education, Sibthorp *et al.* (2015) postulate that genetic factors and socialisation experiences shape the capacity for experiential self-regulation. This implies that individuals are born with the propensity for self-regulation. They are also of the opinion that human beings are born

with the ability to seek and maintain the stimulation needed for self-regulation in the development of healthy relations. In experiential self-regulation it is important to have activities that are intrinsically interesting and goal-oriented. Sibthorp *et al.* (2015) further affirm that individuals who get the best possible arousal as infants develop secure attachments and effective self-regulation; in adolescence individuals with supportive yet demanding home and school environments tend to thrive and have the flexibility to meet challenges in later life. Their studies further postulate that self-regulation is enhanced by goal setting, personal reflection, a challenging and supportive environment, and individual flexibility.

Among nurses, experiential self-regulation incorporates the assumption that every individual is born with the propensity for self-regulation that is moderated by environmental cues to develop healthy relations in the workplace (Gagne & Deci, 2005). It is important for individual nurses to develop healthy relations at work as it contributes to effective performance and quality health care, which can be enhanced by personal goal setting, reflection, supportive work environments, and the individual flexibility to adapt to a changing work environment.

2.6 OTHER ATTRIBUTES RELATED TO WORK CALLING

Various authors have ascribed typical properties and attributes to different work calling orientations across professions and jobs.

2.6.1 Calling and psychological success

Hall and Chandler (2005), in developing a model of psychological success, observed the development of career calling as an ongoing cyclical process involving the deep exploration of personal goals, trial efforts and reflection on success, all of which are part of the process of self-exploration and discernment. Psychological success is described as the subjective (self-oriented) view of objective (other oriented) success in task accomplishment that can lead to subjective feelings of success (Hall & Chandler, 2005).

The above-mentioned authors maintain that when an individual views his or her career as a calling, he or she will strongly focus on goals that reflect values and purpose. As a result of this goal clarity, the individual will exert the necessary effort to succeed and carry out the calling.

According to Hall and Chandler (2005), psychological success develops in a cyclical fashion as a result of the setting and attaining of challenging goals. A sense of psychological success would likely be achieved when the person independently sets a challenging, personally meaningful goal and exerts effort towards achieving it.

Apart from goal setting, engagement in strength and relationships are the other two important factors in the Psychological success cycle (as illustrated in Figure 2.3). The terms 'engagement in strength' and 'relationships' mean that individuals articulate their strengths and talents to use them effectively. Goal setting requires the identification and alignment of both personal and organisational goals, whereas the term 'relationships' refers to obtaining a positive and motivating environment in which the individual can grow. Hall and Chandler (2005) also hypothesise that achievement would lead to higher self-esteem, a more confident sense of individuality, and improved participation in the work domain.

A simplified version of the Psychological success cycle is shown in Figure 2.3 below.

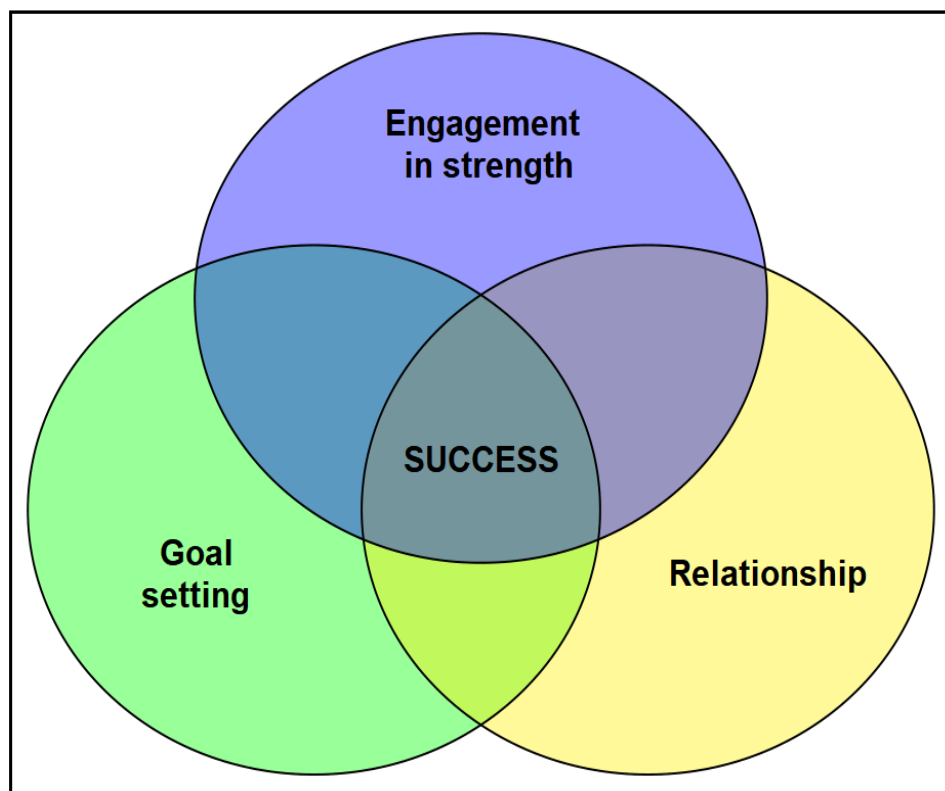


Figure 2.3:
Psychological success cycle

Adapted from Hall & Chandler (2005, p. 148)

Duffy *et al.* (2015) established that the feeling of being called to a particular career weakly correlated to the experience of a happier life, and moderately correlated to life-meaning among undergraduate students. Despite the weak and moderate correlation, the perception of having a calling contributed to higher academic scores and well-being among students, leading to academic satisfaction and a better articulation of life meaning (Duffy *et al.*, 2015). The factors contributing to a weak correlation may include the fact that undergraduate students have not been exposed to work life yet.

Hall and Chandler (2005) suggested that, in cases when psychological success is achieved, work calling orientation enhances self-confidence, adaptability and better task performance. Self-confidence, adaptability and high levels of performance are necessary for career development in the nursing profession. These views were also supported by Erford and Crockett (2012) who found that personality traits and vocational identity are important discriminators for individual satisfaction and success in the work domain.

The current study is aligned to the view of work calling orientation as “a transcendent summons to approach a particular life role in a manner oriented toward demonstrating or deriving a sense of purpose or meaningfulness and that holds other oriented values and goals as primary sources of motivation” (Dik & Duffy, 2009, p. 427). Thus, purpose or meaningfulness is concerned with a sense of satisfaction. Additional oriented goals and values make individuals feel significant. Moreover, motivation has aspects of self-regulation, having the ability to choose and maintain a course of action in line with the work domain.

Other characteristics of WCO that are debated in the literature include a sense of identity, passion and meaningfulness, which are deliberated below.

2.6.2 Work calling orientation and identity

Griepentrog *et al.* (2012, p. 729) present a psychological definition of identity as the “totality of distinctive characteristics or labels belonging to an individual; it is self-image, self-esteem, values and beliefs and self-categorisation”. Two types of identity are considered, one encompassing “idiosyncratic personal characteristics such as abilities and interests (individuals are confident and happy with who they are)” (Griepentrog *et al.*, 2012, p. 729), and the other as the confidence in association with

a particular group or profession (self-categorisation of belongingness to an organisation, career identity) (Willetts & Clarke, 2014). Identity is therefore relational (personal) and contextual (appropriate to work) and formed through experience with significant others.

Work identity can be defined as the “clear awareness of one’s work-related interests, capabilities, goals and moral standards, and the arrangement that links self-perceptions to career roles” (Hirschi, 2012, pp. 3-4). Hirschi (2012) argues that although individuals can experience occupational identity, they might still feel the job is a small part of who they really are, using it as a stepping stone to other jobs and demonstrating that they are extrinsically motivated.

Among nurses, identity would be the extent to which individuals perceive their professional identity without feeling that nursing tasks provide a purpose for their life. On the contrary, calling-oriented individuals have a higher vocational identity, lower levels of negative thoughts, the ability to accomplish career-related goals, and are more intrinsically motivated (Gales & Lenz, 2013). It has also been suggested that work calling orientation may be associated with better career outcomes (Schreuder & Coetzee (2011).

Haslam (2014) explains how social behaviour is structured not merely by people’s sense of themselves as individuals (as ‘I’ and ‘me’) but also (and often more importantly) by their sense of themselves as members of social groups (as ‘us’ and ‘we’). Additionally, he argues that social identity helps people to deal with challenging life changes, recuperating from injury or illness, and even coping with social conflict. In relation to Social Identity Theory, Haslam (2014, pp. 5-12) singles out five important lessons as follows:

- Groups and social identities matter and have a critical role to play in organisational and health outcomes.
- Self-categorisation is important, because self-understanding in a given context shapes individual psychology and behaviour.
- The power of groups is unlocked by working with social identities, and not across or against these identities.

- Social identities need to matter not just in word, but also in deed. Thus, human beings are communal creatures who realise a sense of purpose and self-worth through community interrelationships and group life.
- Psychological intervention is always political, and requires social identity management.

For nurses, group and social identity refers to the feeling of belonging to the nursing profession, where the individual works with professional identities, and therefore feels important because of belonging to the profession. The nursing professional code of ethics helps individuals to perceive and act within the ethical code which becomes part of their self-categorisation. Belonging to a professional nursing body helps individual nurses galvanise the power of groups. At job performance level, belonging to specific medical teams also strengthens their personal identity and helps them to achieve job goals that are aligned with patient and organisational goals.

In a similar study, Deephouse and Jaskiewicz (2013) propose that family members identify more strongly with their family firm than non-family members. They argue that intensified personal identification motivates family members to pursue a favourable reputation, because it allows them to feel good about themselves, and leads to better performance.

For nurses, personal identity and work identity are equally important for effective performance and interpersonal relations at an individual level, as well as for group goal setting and achievement at a professional level. Personal identity is also important because it helps an individual to identify with group values and beliefs, which boosts the commitment to accomplish tasks, despite challenges.

As previously discussed, individuals with a work calling orientation are drawn to specific job domains and are more likely to find their work significant, or to modify their duties and relationships to make them meaningful (Wrzesniewski *et al.*, 1997). The ability to modify jobs and relationships requires individuals to invest emotionally in task performance and interpersonal relations.

2.6.3 Work calling orientation and passion

Dobrow (2004, p. 2) defines “passion as deep enjoyment and satisfaction from engaging in specific work”. Gaan and Mohanty (2014, pp. 56-58) postulate “passion as the strong harmonious inclination towards self-defining activity that people love, feel devotion towards and into which they are willing to invest time and energy (obsessive passion)”. Furthermore, passion is a construct with the three-factor structure of work cognition, work affect and work reflection (Gaan & Mohanty, 2014).

Additionally, integrated work calling (Dobrow, 2004, pp. 3-6) identifies passion as a deep enjoyment of one’s work, and it has five related constructs, namely:

- work preferences that have to do with intrinsic and extrinsic motivation;
- work engagement and flow focusing on individual experience at specific periods of work performance;
- work orientations (job, career and calling);
- good work looks at the individual employee and social factors that promote good work; and
- a discerned and conscious sense of calling.

Calling-orientated individuals view their work with feelings of passion, interest, significance and as something worth spending time and energy on (Mageau & Vallerand, 2007; Shea-van-Fossen & Vredenburg, 2014). When employees have passion for what they do, they are re-energised and revitalised by their performance, and continuously seeking new and innovative ways of solving problems on the job.

Shea-van-Fossen and Vredenburg (2014) conducted a study in the automotive industry exploring the four attributes that contribute to passion, namely, proactive personality, concern for others or self, preference for challenging work and work enjoyment. The authors observed that individuals who avoid challenging work scored high on job orientation, while those who preferred challenging work scored high on calling orientation, and those who neither preferred nor avoided challenges scored high on career orientation. The respondents reported that a choice for challenges provided significance in life, irrespective of the specific activity encountered. Shea-van-Fossen and Vredenburg (2014) presumed that self-directed individuals pay

attention to personal gains or serving their own ends, while other-directed individuals are committed to serving society. Age was associated with gradual changes from job orientation to calling orientation. Furthermore, the lack of personal means does not hinder an individual from perceiving a high calling orientation. They concluded that choosing challenging work distinguishes job, career and calling-oriented individuals.

In nursing care this may imply that individuals with a job orientation would shy away from demanding duties, individuals with calling orientation would derive pleasure from solving complex challenges, while career-oriented individuals would focus on what needs to be done. Since the current study focuses on nurses who are already in practice, having a calling will not be differentiated from living a calling. Individual attitudes would definitely have an impact on nurses' attitudes towards their jobs, and would therefore affect the quality of nursing care.

Mageau and Vallerand (2007) define passion as a strong inclination towards activities that they consider important, like (even love), and to which they are prepared to devote time and energy. Mageau and Vallerand (2007) argue that individuals with passion not only perform tasks, but have a strong identity with the job itself. They conclude that individuals engaged in passionate activities originating from harmonious passion create longer-lasting positive effects that contribute to positive work experiences. Thus, nurses who exhibit passion demonstrate that they are showing their real nature, and not just performing the required nursing care tasks.

The construct of passion found in a calling refers to the extent to which individuals feel summoned or called to enter a specific career or life role. Related concepts include the notion of a protean career (Hall, 2002) in which individuals pursue their career path with passion and the force or intensity of a calling. Hall's (2002) conceptualisation of a calling involves seeing one's work as an invitation to which one must respond, and involves discernment (deep reflection or prayer) to find the right career path.

Individual nurses also consider nursing as a profession that is important and worth spending time and energy on, since it contributes to the alleviation of suffering and promotes the well-being of others. These individuals are expected to have high professional standards because the profession is an extension of personhood and provides an opportunity to be part of offering a better life to others.

2.6.4 Work calling orientation and meaningfulness

Psychological meaningfulness was described by Kahn (1990, pp. 703-704) as the “extent to which individuals are willing to invest themselves physically, cognitively and emotionally in job performance”. This experience, he explained, was dependent on the individual perception that what they were doing was worthwhile, useful and valuable, and therefore, could contribute to the greater good.

Meaningfulness is defined as the “value of a work goal or purpose, judged in relation to an individual’s own ideals or standards” (May *et al.*, 2004, p. 15) that is enhanced by job enrichment, work role-fit, and interpersonal relations in the workplace. Hirschi (2012, p. 3) defines meaningfulness as the “amount of importance people perceive in their work”. Emerson (2017) suggests that the possession of work calling orientation is associated with better employee performance as it provides a sense of meaningfulness and identity at work. The author further confirms that the presence of work calling orientation predicts meaningfulness of work among undergraduate students.

This study focuses on the degree to which nurses perceive their work as meaningful and worthwhile, as it is valuable work that contributes to the quality care of patients.

Kahn (1990) postulates that employees may use their physical, cognitive and emotional selves in job performance, and yet maintain the boundaries of who they are in relation to the jobs they perform. However, the more individuals draw on their own selves in job performance, the more emotive the task performance, and the better the role-fit. The physical self (drawing on their own selves) has to do with work behaviour that persists through and despite challenges (Ponton *et al.*, 2014).

Dobrow (2013) posits that individuals with work and career callings are positively associated with domain-specific intentions and behaviours. The cognitive self refers to the extent to which individuals have tunnel vision or are focused on beliefs, ignoring outside information, as well as the emotional (especially positive/affective) self, which is associated with job satisfaction and well-being (Duffy *et al.*, 2015).

Among nurses, enjoying work meaningfulness may be important to ensure that individuals can invest their total selves in care giving. Since meaningfulness is associated with positive work outcomes, it is vital to encourage employees to seek

and develop meaningfulness in their jobs for effective performance (Dobrow & Tosti-Kharas, 2011; Duffy *et al.*, 2012; Hirschi, 2012).

2.7 WORK CALLING ORIENTATION DEVELOPMENT AND JOB CRAFTING

As previously discussed, work calling orientation is significant for both the employees' positive outcomes (Dobrow, 2004; Kahn, 1990) and organisational performance (Mageau & Vallerand, 2007; May *et al.*, 2004; Siddiqi, 2015). However, employees might find themselves in jobs or work domains determined more by school performance, rather than from the individuals making a decision based on a considered personal choice. Individuals sometimes therefore try to shape their jobs to fit their personal preferences. This is referred to as job crafting by Wrzesniewski *et al.* (1997) and defined as the "processes and activities employees engage in to make a job better fit their individual preferences and competencies" (Wrzesniewski & Dutton, 2001, p. 180). Furthermore, Wrzesniewski *et al.* (1997) explain that job crafting allows individuals to psychologically, socially and physically shape their individual work identities and roles through the personal construction of jobs and approaches to task execution.

According to Wrzesniewski and Dutton (2001) work calling orientation can develop in three ways:

- Individual introspection to hear a calling from external higher powers (Feemster, 2007; Hall & Chandler, 2005);
- Looking into oneself to discover what type of work might be experienced as deeply meaningful; and
- Being challenged to craft jobs which align with a sense of calling (Siddiqi, 2015; Wrzesniewski & Dutton, 2001).

In other words, work calling orientation can develop from spiritual sources, the self, individual upbringing, role models and/or work experiences. Hall and Chandler (2005) also posit that individuals with a career orientation work for self-fulfilment and believe that their work impacts society positively.

It would be interesting to understand the process followed in finding a calling among nurses in Namibia. However, this topic falls beyond the scope of the present study. It is noted, however, that individual nurses could craft their jobs into a calling.

In a study on teachers in Zambia, Rothmann and Hamukang'andu (2013) found that when teachers view their work as a work calling orientation, they experience a work role-fit, psychological meaningfulness, and perceive their work as an opportunity to express their true selves by performing their jobs. Wrzesniewski, Berg and Dutton (2010) are of the opinion that job crafting involves the process of employees restructuring or modifying their jobs, to help them remain energised and to incorporate individual motives, strengths and passions.

Organisational embeddedness and affective commitment has an impact on the extent to which employees are likely to take initiatives, such as job crafting. In situations that are not ideal, Rothmann and Hamukang'andu (2013) posit that individuals with a calling orientation are more likely to craft their jobs to match their self-concept, find psychological meaningfulness, and to avoid negative work outcomes.

Job crafting is an effective tool for preventing stress and other negative work outcomes, including burnout (Siddiqi, 2015). Teachers were found to craft their jobs by reframing the rationale for their work, taking on additional work that is more closely related to areas of individual interest, and by devoting more time and energy to tasks that provide personal meaning and engagement (Rothmann & Hamukang'andu, 2013). Job crafting, according to Siddiqi (2015), involves evaluating and changing aspects of the work, including tasks, perceptions and relationships.

In terms of the crafting of jobs, the present study identified nurses who respond strongly in terms of the ability to deal with complex situations and new challenges positively, for example, by taking work on holiday, telling others about their job, and recommending their profession to other people. Some aspects of job crafting can be recommended as activities that can increase satisfaction among nurses, while reducing negative job outcomes such as burnout. Job crafting can also be suggested for individuals who feel stuck in a job that does not resonate with their interests, values and vitality. Both employers and employees have a role to play in job crafting and to ensure positive work outcomes among nurses in the respective hospitals in the Khomas Region in Namibia.

2.8 CALLING AND WORK ROLES

According to Rothmann and Rothmann Jr. (2010), a work role is a set of connected behaviours, rights, obligations, beliefs, and norms, as conceptualised by persons in the workplace, and through which employees express themselves physically, cognitively and emotionally. With regard to new employee adaptability, Zhang *et al.* (2014) confirm that work role-fit is affected by five factors, which include cultural adaptability, work stress adaptability, interpersonal adaptability, learning adaptability, and uncertainty adaptability.

May *et al.* (2004, p. 15) define work role-fit as “the ability of an individual to express his or her values, beliefs and principles as a result of a perceived fit between his or her concept of the self and his or her work role”. Rothmann and Rothmann Jr. (2010) assert that work role-fit depends on whether the individual is ready or confident to engage in a work role, against the fact that people are also engaged in many other life activities.

Furthermore, Zhang *et al.* (2014) explicate that work role-fit enhances a person’s self-concept and leads to psychological meaningfulness (sense of life meaning) when able to express their own values and beliefs. Evidently, people choose work roles that afford them the opportunities to express their authentic self-concepts, thereby resulting in greater well-being. This implies that employees tend to feel empowered when their work roles afford these opportunities for authentic self-expression.

Work role-fit also contributes to the reasons why employees flourish in the workplace (Diedericks & Rothmann, 2013), while employees who lack resources tend not to fit into their work roles well, and often do not have good relationships with their supervisors (May *et al.*, 2004; Rothmann & Rothmann Jr., 2010).

The current study explored the extent to which individual nurses perceive their jobs as avenues to express themselves physically, cognitively and emotionally. The study further aimed to identify the extent to which individual nurses express their values, beliefs and principles in their jobs.

2.9 CALLING AND DEMOGRAPHIC VARIABLES

Gales and Lenz (2013) expound on vocation as an attitude, idea or feeling of commitment, and a mode to be enacted through practice. It relies on legacies from the

past, visions of a collective future and lived time. Among academics, vocation produces a sense of purpose, meaning and satisfaction that may be open to exploitation by managers (Gales & Lenz, 2013). In earlier studies, Phillips (2011) proposes that a sense of vocational calling contains components of spirituality and meaningfulness, and displayed gender differences in which women benefit from relational aspects (affective element) and men by providing purposive services (cognitive element).

On the contextual influences of work and family roles, Perrone-McGovern *et al.* (2014, p. 21) suggest that an “integrated view of work and family roles is important to understand the interrelatedness of the roles individuals play”. They argue that workplace characteristics, economic trends and personal values influence decisions related to career, family and other life roles. Across generations, Perrone-McGovern *et al.* (2014) found that the mature generation held higher levels of satisfaction in the domains of job, family, marriage, and life than did the younger generations. Younger generations tended to seek a balance between work and family roles, and increasingly valued work that allowed time for leisure. Consequently, Perrone-McGovern *et al.* (2014) implied that cultures that view human beings as having integrated work and family roles (diffuse cultures not compartmentalised), where career and other work roles are viewed within the context of the larger society, enjoyed stronger relationships and greater work-to-family and family-to-work enrichment. They also concluded that individuals from individualistic cultures would be more negatively affected by work–family conflict than would those from collectivistic cultures leading to less job satisfaction.

Among academics, a study by Gazica and Spector (2015) on employees without a calling, reported better life, job and health-related outcomes than those with unanswered calling. Academics with an answered occupational calling tended to report better job attitudes and domain-specific satisfaction and less withdrawal intentions than those who reported an unanswered occupational calling or no calling at all (Gazica & Spector, 2015). Further, academics experiencing an unmet calling reported significantly poorer physical and psychological health if compared to those living a calling or those with no calling at all.

In terms of generational differences, adolescents reported decreased intrinsic work values (for example, acquiring useful skills, seeing the results of one's work, having a job that is interesting), consistent extrinsic work values (for example, status, respect, advancement, earnings), and increased value of work that allows time for leisure. On gender differences, men reported higher levels of extrinsic work values, while women reported higher levels of intrinsic work values (Perrone-McGovern *et al.*, 2014).

Thompson and Feldman (2010) evaluated a course "Let Your Life Speak", designed to support students in discerning their vocational callings and to provide an intentional environment for students to pause, reflect and make meaning of their experiences while they articulate their interests, talents and aspirations. Concerning the gender and ethnic composition of students in the course, more female and white students chose to enrol in comparison to the proportions in the student body. Regarding gender, the researchers suggested that women planned their career decision-making process more than men did, and that women rate career counselling and opportunities to grow and mature as more important than men do, whereas more men rated concrete employment skills as important (Thompson & Feldman, 2010). It seems that more women than men may have chosen the course because it offered them opportunities to explore life broadly, rather than to promote specific skills. On self-rated questionnaires, many believed that men are more likely to determine their futures independently, whereas women are more attracted to opportunities for collective discussion.

Dobrow and Tosti-Kharas (2011), in developing a scale to assess calling across work domains, conclude that calling appears to be trait-like in which the longer the time the individual spends on the job, the more meaningful change in calling occurs. Calling was negatively related to age for professional managers, consistent with findings that calling can decline over time (Dobrow, 2007). Shea-van-Fossen and Vredenburg (2014) propose that with age a person's perception of their work calling orientation profile may change gradually over the course of time and work-life.

In the current study, cultural differences, gender and maturity are characteristics that were expected to make a difference in the way nurses view their work as calling, job or career (Dobrow, 2007; Perrone-McGovern *et al.*, 2014; Thompson & Feldman, 2010). Due to the nurturing quality of nursing and cultural stereotypes, it was expected

that more qualified nurses would be female than male (Perrone-McGovern *et al.*, 2014; Thompson & Feldman, 2010), especially among more mature nurses. Age is an influential factor, in that more mature individuals are expected to score higher on work calling orientation (Shea-van-Fossen & Vredenburg, 2014), as opposed to the factor of career or job orientation. Moreover, additional demographic characteristics were expected to also affect the way nurses respond to questions on work calling orientation.

2.10 SUMMARY OF CHAPTER 2

This chapter discussed work calling orientation from different perspectives, but mainly as the individual's feeling of being drawn to pursue a work domain, expecting it to be intrinsically motivating, enjoying it, and as a central part of their identity which makes it meaningful (Wrzesniewski *et al.*, 1997). The term work calling orientation is secularised to indicate that individuals choose and work in a calling towards a particular domain, rather than answering an external call (Dobrow, 2013).

The chapter further discusses the three different types of work calling orientation categories, as calling, job and career orientations (Wrzesniewski *et al.*, 1997). Vocational calling was discussed as a term that is interchangeably used with work calling but involves improvement of the inner self, viewing each individual as an agent called into being with and for the good of others (Riem, 2003).

Work calling orientation was considered as consisting of the three elements of significance, satisfaction and self-regulation. Significance was defined by Hibberd (2013) as an aspect of meaning that assigns value to a goal, relationship, or aspect of life that exists in the present and future. Satisfaction was defined by Dik and Duffy (2009) as the sum of the positive emotional reactions and attitudes (resulting from career commitment and life meaning) that individuals have towards their work. Self-regulation was explicated as the process of overriding or altering individuals' spontaneous and impulsive responses associated with the attainment of beneficial, wholesome and virtuous goals, such as being healthy, performing well academically, and maintaining loving relationships (Booker & Mullan, 2013; Lisjak & Lee, 2014).

Further, the characteristics of work calling orientation that were discussed include identity, passion and meaningfulness. Finally, the additional factors affecting work

calling orientation discussed in this chapter included job crafting, work roles and demographics. The next chapter focuses on the topic of work engagement. This partly concludes Research aim 1 as follows:

Research aim 1: To theoretically conceptualise the constructs of work calling orientation, work engagement and burnout, and their respective sub-dimensions.

Chapter 3 presents a review of the literature on the work engagement construct.

CHAPTER 3: WORK ENGAGEMENT

3.1 INTRODUCTION

There are several approaches to viewing engagement, as previously discussed. Alfes, Shantz, Truss and Soane (2013) reflect on the plurality of engagement across different authors and practitioners as work engagement (WE), personal engagement, employee engagement, organisational engagement and more recently work passion. This view embraced the Bayesian multi-measurement mediation approach and implications for HRD study (Shuck, Zigarmi, & Owen, 2015).

To be inclusive and international, Shuck *et al.* (2015, p. 2) define engagement as “involvement, commitment, passion, enthusiasm, absorption, focused effort, zeal dedication and energy”, among other terms. Originally, Kahn (1990, p. 694) suggested that “engagement is a personal expression of self-in-role performance; where individuals express their authentic self and are willing to invest their personal energies in their job”.

The satisfaction-engagement approach contends that “engagement is an individual’s involvement, enthusiasm (passion) and satisfaction with work” (Harter, Schmidt, & Hayes, 2003, p. 260). The multi-dimensional approach (Schaufeli & Salanova, 2014, p. 309) views “engagement as a distinct and unique construct consisting of cognitive, emotional and behavioural components associated with individual role performance”. The aforementioned authors distinguish between job engagement, which is role performance, and organisational engagement that has to do with performing roles as a member of the organisation.

This study deals with work engagement as an independent, persistent and pervasive motivational psychological state that “accompanies the behavioural investment of personal energy” (Schaufeli & Bakker 2010, p. 22). Schaufeli and Bakker (2010) present an integrative model of work engagement, with three sub-dimensions that assume that workplace or job resources have a motivational potential that leads to high work engagement and better performance.

An earlier study considers “work engagement as a distinct concept, a positive, fulfilling work related state of the mind characterised by vigour, dedication and absorption”

(Schaufeli *et al.*, 2002, p. 74). They proposed a more restrictive model that considers work engagement as an experienced psychological state that mediates the impact of job resources and personal resources on organisational outcomes.

The British Chartered Institute of Personnel Development (CIPD, 2006) also proposed that work engagement goes beyond job satisfaction and is not simply motivation. Engagement is something the employee has to offer and it cannot be 'required' as part of the employment contract (CIPD, 2006).

In their definition of engagement, the American Society for Human Resources Management (SHRM, 2005) includes employees' satisfaction with their work and pride in their employer, the extent to which people enjoy and believe in what they do for work, and the perception that their employer values what they bring to the table. Additionally, they speculate that the greater an employee's engagement level, the more likely he or she is to 'go the extra mile' and deliver excellent on-the-job performance (SHRM, 2005).

3.2 HISTORICAL DEVELOPMENT OF WORK ENGAGEMENT

Work engagement was first articulated by Kahn (1990, p. 694) as "matching the needs satisfying approach as the extent to which people make full use of their emotional, cognitive and physical identities to perform work related tasks". According to Kahn (1990), the psychological conditions of engagement are met when employees' have adequate meaningful work, individual resources available to do that work, and feel psychologically safe to invest themselves in that work. The emotional dimension, according to Kahn (1990), is the extent to which employees feel that bond and are proud to work with a specific organisation.

Psychological safety develops from organisational social systems that provide good interpersonal relations, supportive leadership and values that the employees identify with (Xu & Cooper-Thomas, 2011). Psychological meaningfulness was described by Kahn (1990, pp. 703-704) as the "extent to which individuals are willing to invest themselves physically, cognitively and emotionally in job performance". Bakker, Demerouti and Sanz-Vergel (2014) consider work engagement as a positive, work-related state of well-being or fulfilment characterised by energy, involvement and efficacy.

Eldor (2016) in creating a theoretical model that links work engagement to the employees' work life, private life and community life, posits that work engagement demonstrates benefits in all three domains. Consequently, promoting work engagement among employees gives organisations a competitive advantage and provides community benefits. The usefulness of work engagement leads to positive feelings, a sense of mission, dedication, optimism, and happiness that is associated with compassion, generosity, and increased assistive behaviour, especially among caregivers, such as nurses (Eldor, 2016). Work engagement is therefore a persistent and pervasive affective and cognitive state, focused on the performance of tasks within a given domain.

In addition, Albrecht (2010) suggests that work engagement has a positive work-related psychological and motivational state that is reflected by a genuine willingness to invest focused effort towards organisational goals and success. Meaningfulness and identity allow employees to experience work engagement together with vigour, dedication and absorption with their jobs (Blanco-Donoso, Garrosa, Moreno-Jiménez, De Almeida, & Villela-Bueno, 2016).

Rothmann and Hamukang'andu (2013) posit that confidence in the organisation, managers and colleagues, and autonomy at work are precursors of work engagement. The aforementioned authors further argue that among nurses the outcomes of work engagement include higher levels of personal initiative, decreased hospital mortality rates and higher profitability for the organisation. Therefore, the interpersonal effect of confidence and autonomy has the superior influence of work engagement among nurses (Rothmann & Hamukang'andu, 2013).

The theoretical definition of work engagement, as proposed by Schaufeli and Bakker (2004, p. 292), is a positive, fulfilling, work-related state of mind characterised by vigour, dedication and absorption, thus being fully concentrated and happily engrossed in one's work, whereby time passes quickly and one has difficulty detaching oneself from work (Green Jr., Finkel, Fitzsimons, & Gino, 2017). Furthermore, Tomlinson (2010) posits work engagement is when employees live the organisational brand. It is the extent to which employees derive pride, enjoyment; inspiration and meaning from the organisation, which creates a sense of destiny and connection with people (Holbeche & Matthews, 2012).

Rothmann and Hamukang'andu (2013, pp. 2-3) posit that work engagement is having a “feeling of being called to work roles that contribute to people extending their work roles to self-concepts”, while experiencing joy in one’s work contributes to employee wellness. Individuals who score high on work engagement and its sub-dimensions experience psychological meaningfulness when they receive return on investment of self in physical, emotional and or cognitive rewards (Rothmann & Hamukang'andu, 2013).

According to Blanco-Donoso *et al.* (2016), psychological meaningfulness is defined as the value of a work goal or purpose, judged in relation to an individual’s own ideals or standards that are enhanced by job enrichment, work role-fit and interpersonal relations in the workplace. This is in line with the suppositions of the SDT construct of significance.

The basic assumptions of SDT share a positive statistically significant relation with the construct of engagement and its sub-dimensions (Dik & Duffy, 2009). Deci and Ryan (2000) maintain that SDT promotes the proposition that an individual is recognised as having both free will (volitional) and is an agent of their own future by acting on behalf of their psychological needs. SDT is primarily concerned with forward influence, independent choice and the degree to which behaviour is self-regulated, self-determined and self-motivated (Deci & Ryan, 2000).

Optimal human motivation is believed to originate from the internal organismic needs that are required for growth and integration, rather than just from the physiological drives of pleasure and pain (Millette & Gagne, 2008). The basic psychological needs of competence, autonomy and relatedness are important for influencing engaging work behaviour. A study on psychological needs, engagement and work intentions by Shuck *et al.* (2015), using the Bayesian multi-measurement mediation approach, demonstrated a positive association between the SDT concepts and the sub-dimensions of engagement. Shuck *et al.*’s (2015) study found that employees who indicated that they experienced higher levels of autonomy, relatedness and competence, also scored higher on levels of engagement.

Maslach and Leiter (1997), according to the burnout antithesis approach, defined work engagement as the antithesis of burnout, as well as a distinctive, positive

psychological state comprising of affective, cognitive and behavioural components. This approach views engagement as the positive and burnout as the negative of the same continuum. Thus, work engagement is characterised by the three sub-dimensions of vigour (energy), dedication (involvement) and absorption (immersion), which are on a continuum and are direct opposites of the burnout sub-dimensions of exhaustion, cynicism and lack of accomplishment (Maslach & Leiter, 1997). This implies that an employee who scores high on engagement will score low on burnout and *vice versa*.

This study focuses on work engagement as defined by Schaufeli and Bakker (2010, p. 22) and Schaufeli and Salanova (2014) to include the three sub-dimensions of “vigour, dedication and absorption”. In the case of nurses, work engagement means they would be affected by the perception of work meaningfulness, resources available and psychological safety. The conditions under which Namibian nurses work, their personal resources, including personality and the tools to perform their tasks, are critical in enabling effective job performance, and creating and maintaining high work engagement levels.

3.3 CONCEPTUALISING THE CONSTRUCT OF ENGAGEMENT

Engagement is defined as “the degree to which employees are willing to positively invest their psychological cognitive elements, emotional attributes and physical strengths to organisational goals and success” (Rayton & Yalabik, 2014, Xu & Cooper-Thomas, 2011, pp. 399-400). Common definitions by researchers and practitioners describe work engagement as a positive work-related psychological and motivational state reflected in a genuine willingness to invest focused effort towards organisational goals and success (Albrecht, 2010). These definitions focus on a positively energised work-related motivational state and a genuine willingness to contribute to the work role and organisational success.

In support of Kahn’s (1990) articulation of the cognitive dimension, Rosethorn (2009) explains the cognitive dimension as that which an employee thinks about a company, whether there is intellectual fit with the company, and whether they agree with the organisational vision, mission, business strategy and objectives. Rayton and Yalabik (2014) suggest that engagement happens when employees feel that the organisation provides financial, developmental and professional rewards in their best interest.

Schreuder and Coetzee (2011) add that employees also gain fresh insights and competencies, and have a positive career progression.

Stander and Rothmann (2010) propose that cognitive job security correlates positively with meaning, self-determination and impact. Cognitive engagement has to do with employees taking an interest in the organisation to the extent they would recommend to other people to join the organisation (Rayton & Yalabik, 2014). It explains employees' perception of job security, organisational trust, beliefs, culture and feelings of empowerment (Stander & Rothman, 2010).

Therefore, the cognitive dimension of work engagement is built on the employee's evaluation of organisational factors and the decision to join and stay committed to the organisation or profession (Green Jr. *et al.*, 2017). Work absorption can be assumed from the extent to which individuals choose to stay committed to the organisation or profession (Stander & Rothman, 2010). Absorption is a sub-dimension of work engagement.

The behavioural dimension, according to Kahn (1990, p. 700), is the "extent to which employees' work behaviour, willingness to go the extra mile and give discretionary efforts with intention to stay with the organisation". Green Jr. *et al.* (2017) posit that work engagement is a driver for organisational branding, in which the employee life cycle is driven by rewards and recognition, organisational culture and environment, opportunities and corporate reputation and brands. Behavioural engagement entails individuals bringing/ investing themselves in work role performance (Kahn, 1990), while displaying positive attitudes and intentions in their performance behaviour (Bakker *et al.*, 2014).

Work engagement, according to Marciano (2010), is also the extent to which one is committed, dedicated and loyal to the organisation, supervisor, work and colleagues. It is an intrinsic deep-rooted and sweeping sense of commitment, pride and loyalty that is not easily altered (Rayton & Yalabik, 2014). This is similar to the concepts used in the definition of work engagement by Bakker *et al.* (2014).

Highly engaged employees will remain motivated, despite adverse circumstances, such as limited resources, time pressure and other negative work conditions, and they will look for opportunities to attain the objectives and goals that have been set by the

organisation (Green Jr *et al.*, 2017). Marciano (2010) also agrees that engaged employees are fulfilled by the achievement of set objectives and goals. These employees bring new ideas to work, are passionate and enthusiastic, actively seek to improve the self and others, consistently exceed goals and expectations, are optimistic and positive, stay focused on tasks, and are committed to the organisation (Rayton & Yalabik, 2014). Finally, engaged employees understand and incorporate the business owner's perspective more fully in their work, and have a heightened emotional and intellectual connection to the organisation, job, co-workers, manager and customers (Blanco-Donoso *et al.*, 2016).

Schaufeli and Salanova (2014) state that the literature defines work engagement as either the positive antithesis of burnout, or as a distinct positive concept in its own right. As a positive construct, work engagement is defined as a fulfilling, work-related state of mind characterised by vigour, dedication and absorption. The aforementioned authors propose that work engagement is associated with involvement, commitment, passion, enthusiasm, focused effort and energy. It is described as an emotional involvement or commitment and the state of being in gear, and therefore related to employee work outcomes (Schaufeli & Salanova, 2014).

Rayton and Yalabik (2014) submit that work engagement is related to individual interaction with the work environment, and therefore brings added value to each of the three domains of work, personal life and community. Furthermore, employees with work engagement provide organisations with a competitive advantage. In earlier studies, Macey, Schneider, Barbera and Young (2009) asserted that engaged employees give more of what they have to offer, and that as a result, an engaged workforce is a more productive workforce. In the highly competitive global economy, high productivity is the desire of every company that aims to remain in business. This study attempts to link high productivity and competitiveness in health care with work engagement among nurses.

As an antipode of burnout work (Schaufeli & Salanova, 2014), work engagement is defined as the degree to which a person commits to an organisation, the impact of that commitment on performance, and the extent to which they are willing to remain in the organisation. In agreement with Maslach and Leiter (1997), Schaufeli and Salanova (2014) further posit that engagement is on a continuum from engagement to burnout. Employees who are engaged in their work may feel motivated and energetic, while

those having burnout feel exhausted and cynical or bored. By implication, engagement is assessed by the opposite pattern of scores on the three dimensions of the Maslach Burnout Inventory (MBI), namely, low scores for exhaustion and cynicism, and high scores for professional efficacy (Schaufeli & Salanova, 2014).

In describing engaged employees, Macey *et al.* (2009) maintain that employees who are engaged are persistent, proactive, go beyond requirements and are adaptable to different work challenges. These employees are self-initiated and willing to take on new responsibilities (Van der Colff & Rothmann, 2014). Engaged employees are therefore an asset to any organisation, especially in nursing, where individuals are expected to solve workplace challenges at every job level.

In testing the JD-R model, Bakker *et al.* (2010) concluded that job resources, including reinforcement, feedback on performance, involvement in decision-making, and more career opportunities contributed to the attributes of work engagement, such as task enjoyment, organisational commitment and job satisfaction, even under conditions of high job demands. Li and Mao (2014) supported these results in their assertion that a stronger experience of a positive psychological state at work leads to more positive attitudinal (for example, increased job satisfaction) and behavioural (for example, better performance) responses to work.

Li and Mao (2014) further established that a proactive personality has a moderating effect on negative work outcomes, such as interpersonal conflict and psychological stress, and positive work outcomes, such as job satisfaction and academic achievement. These findings are in line with previous research that indicated that a combination of increased demands and increasing resources result in the increase of work engagement among employees (Bakker & Demerouti, 2007).

Job satisfaction and academic achievement result from individuals' "ability to determine the degree of support, goal setting, applying learnt competencies, self-monitoring and self-reinforcement in job performance" (Noe, 2005, p. 151). Organisations must therefore develop and nurture employee engagement in order to gain a competitive advantage in the marketplace, among other benefits to be gained from job satisfaction.

In nursing, engagement is essential for the provision of quality patient care, in the sense that the well-being of a patient is both physical and psychological (Atinga, 2013). Furthermore, engaged employees are conscious of the business contexts (work environment) and are likely to work with colleagues to improve their performance on the job for the benefit of all (organisation and patients in case of nursing care).

This study focuses on work engagement in the workplace as it relates to employees, organisations and service recipients in the Namibian health care sector.

The construct of work engagement is diagrammatically represented in Figure 3.1 below.

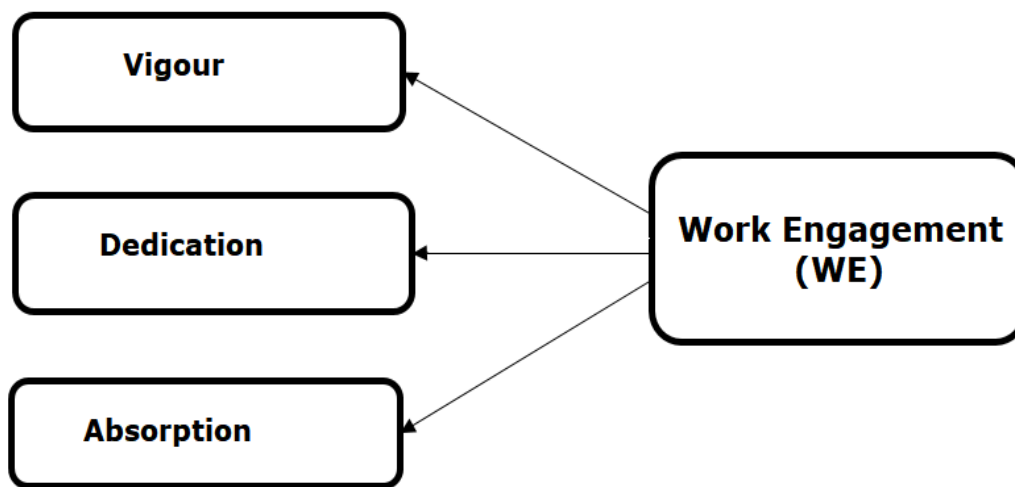


Figure 3.1:
Work engagement and its sub-dimensions

Source: Schaufeli & Salanova, 2014

The construct of work engagement, as displayed in Figure 3.1, has three sub-dimensions of vigour, dedication and absorption. The sub-dimensions are discussed in more detail in the next section.

3.4 SUB-DIMENSIONS OF CONSTRUCT WORK ENGAGEMENT

The current study adopts Schaufeli and Salanova's (2014) definition of work engagement that includes the three constructs of vigour, dedication and absorption. This definition is considered to be the most fitting for the set problem statement and hypotheses testing.

- Vigour indicates a state of positive mood that influences the experience at work, "giving individuals' feelings that they possess physical strength, emotional energy

and cognitive liveliness” (Armon & Shirom, 2011, pp. 618-619; Shirom, Melamed, Berliner & Shapira, 2012, p. 130).

- Dedication is defined by Klein, Molloy and Brinsfield (2012, p. 131) as a “construct that better explains workplace commitment”, which is the opposite of the depersonalisation or cynicism found in burnout, as expounded by several authors, including Van der Colff and Rothmann (2014) and Maslach *et al.* (2001).
- Absorption is characterised by being fully concentrated and happily engrossed in one’s work, time passes quickly and one has difficulties to detach oneself from work (Schaufeli *et al.*, 2002).

Each of these sub-dimensions will be discussed in more detail in the sections below.

3.4.1 Vigour

Schaufeli and Salanova (2014) define vigour as high levels of energy and mental resilience while working, and the willingness to invest effort in one’s work and to display persistence in the face of difficulties.

Vigour and dedication are positive sub-dimensions that are the direct opposite of exhaustion and cynicism which are the sub-dimensions of burnout (Schaufeli & Salanova, 2014).

Vigour (energy) is defined more inclusively as a “mood state lasting longer than momentary emotions comprising of perceptions of physical strength, emotional energy, and cognitive dynamism” (Shirom *et al.*, 2012, p. 130; Van der Colff & Rothmann, 2014). Energy at work is also a predictor of important health outcomes, such as longevity and job performance.

Armon and Shirom (2011, pp. 618-619) define vigour as a positive influence experienced at work, which gives individuals’ the feelings that they possess physical strength, emotional energy, and cognitive liveliness. This means that they have high levels of energy, mental agility and the ability to emotionally invest in relationships with clients and co-workers; all of which are required in the effective performance of nurse roles (Van der Colff & Rothmann, 2014).

Additionally, in a study on the relationship between vigour and sleep disturbance (insomnia) in adults, Armon and Shirom (2011) discovered that vigorous physical activity enhances the quality of sleep (reciprocal inverse relationship) among working

adults. Vigour and restful sleep are important resources that lead to an increased ability to self-regulate and improve performance (Armon, Melamed, & Vinokur, 2014). On the topic of insomnia, Armon *et al.* (2014) propose that it can also lead to low levels of vigour in adults when they wake up exhausted, thus reducing their focus on the job and effective performance.

Among nurses, vigorous physical activities can therefore improve the quality of sleep (Armon & Shirom, 2011), especially since they work in different shifts that can disrupt normal body functioning. It would, however, be important for individual nurses to appreciate that vigorous physical activities will have a positive impact on their bodies (Van der Colff & Rothmann, 2014). That appreciation would help in the positive cognitive perception of the nursing role that is related to better performance. In relation to the knowledge of eating and replenishing behaviour, nurses can then focus on health and nutrition, thereby reducing the incidence of obesity.

In cross-sectional and longitudinal clinical trials, Kirn, Koochek, Reid, Von Berens, Trivison, Foltz and Fielding (2015) established that vigorous exercises, such as structured, moderate-to-intense physical activity can prevent mobility loss in mobility-limited older adults. Additionally, Kirn *et al.* (2015) recognised that these exercises can improve respondents' physical functionality, health and physical abilities.

3.4.2 Dedication

Schaufeli and Salanova (2014) delineate dedication as characterised by a “sense of significance, enthusiasm, inspiration, pride and challenge”. Klein *et al.* (2012, p. 131) define dedication as a “construct that better explains workplace commitment”. They further explain commitment as a specific psychological bond reflecting dedication and responsibility for a target, vow or pledge that binds one to the target, while feeling responsibility and a sense of volition. Individuals make a conscious choice to care about and dedicate themselves to the target. Dedication is therefore the opposite of depersonalisation or cynicism as found in burnout, and as expounded by several authors, including Van der Colff and Rothmann (2014), and Maslach *et al.* (2001).

Van Bogaert, Wouters, Willems, Mondelaers and Clarke (2013), using multivariate models, suggested that variations in vigour, dedication and absorption across teams is connected to characteristics in the practice environment that impact the nurses' job satisfaction, intention to stay with an organisation and quality of care. However,

dedication was the strongest predictor of positive job outcomes at individual nurse level, and led to a better quality of nursing care in interdisciplinary teams.

A study by Heggen and Terum (2013) concluded that professional dedication is affected by the interactions between theory and practice, teacher and student, supervisor and student and peers, which results in coherence perception of the profession. Thus, when learners (student nurses) experience a clear relationship between schoolwork and fieldwork, and satisfactory interactions with peers and supervisors, professional education contributes to the development of motivation and professional identity and dedication (Heggen & Terum, 2013).

Among nurses, dedication plays an important role in job satisfaction, quality of nursing care and other positive job outcomes (Van Bogaert *et al.*, 2013). Nurses who experience coherence between theory and practice, and good interpersonal relations with supervisors and peers may be more dedicated to their profession than those who do not (Heggen & Terum, 2013). Professional identity and dedication would lead to quality nursing care and the ownership of job outcomes at the individual nurse level.

3.4.3 Absorption

Schaufeli and Salanova (2014) define absorption as the state of “being fully concentrated and happily engrossed in one’s work, whereby time passes quickly and one has difficulties with detaching oneself from work”. In an earlier study, Schaufeli and Bakker (2010) define absorption as the third dimension of engagement, which was found to be a constituting element of engagement. Being fully absorbed in one’s work comes close to what has been called ‘flow,’ a state of optimal experience that is characterised by focused attention, a clear mind, mind and body union, effortless concentration, complete control, loss of self-consciousness, distortion of time, and intrinsic enjoyment (Csikszentmihalyi, 1990; Eldor, 2016).

Gevers and Demerouti (2013, pp. 678-679) define absorption as an “individual attribute involving high tendency to participate in specific events or tasks with total attention”. Additionally, Csikszentmihalyi (1990) defined absorption as a state of heightened concentration, that has a positive effect and leads to feelings of timelessness, considered to be characteristic for conditions identified as flow, or according to Wissing *et al.* (2014), engrossment and engagement. Total attention and heightened concentration are also referred to as the loss of self-consciousness

necessary for increasing a lively and resourceful commitment in creative thinking (Wissing *et al.*, 2014).

Gevers and Demerouti (2013) argue that supervisors' reminders may afford clear temporal goals, direct attention toward on-task activity, marshal effort and help employees in finding the right balance between challenge and skill. This then, allows workers to become fully absorbed in their work, despite the pressures of impending deadlines.

Full concentration among nurses would lead to improved performance and better quality of nursing care (Csikszentmihalyi, 1990; Gevers & Demerouti, 2013). This would improve quality of care (Van Bogaert *et al.*, 2013) and reduce the customer complaints that have been reported in the Namibian media.

Furthermore, Gevers and Demerouti (2013) add that creativity and innovation in nursing service are important because nurses deal with an ever-changing clientele, and new diseases that require different methods of management in an ever-changing work environment. It is therefore necessary to balance workload, creativity, innovation and real work life demands.

3.5 FACTORS THAT CONTRIBUTE TO WORK ENGAGEMENT

There are many factors that contribute to work engagement, as outlined by various authors, such as Cooper-Thomas *et al.* (2010), Kahn (1990), Macey *et al.* (2009), Tomlinson (2010), and Rothmann and Cooper (2015). These authors agree that the factors of engagement generally emanate from four areas, namely, employee characteristics, work conditions, supervisor skills, and collegiality, as indicated in Figure 3.2 below.

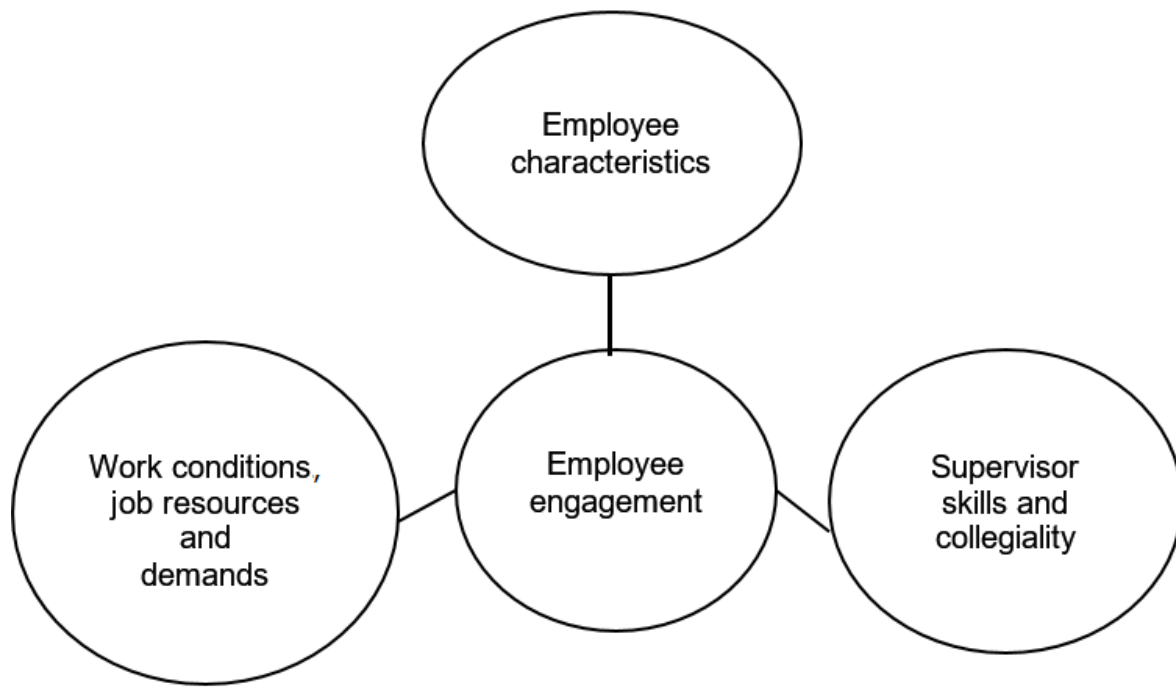


Figure 3.2:
Job resources and job demands

Source: Author's own compilation

The factors affecting work engagement, as reflected in Figure 3.2, are discussed in more detail below. The conditions are discussed within the context of the JD-R Model, employee characteristics and the support provided in the workplace by supervisors and colleagues.

3.5.1 Work conditions and work engagement

Work conditions are described in the JD-R model as including job demands and job resources (Boyd, Bakker, Pignata, Winefield, Gillespie, & Stough, 2011; Schaufeli & Salanova, 2014). According to Schaufeli and Salanova (2014) and Bakker *et al.* (2014), the JD-R model categorised working conditions into two broad categories, namely, job demands and job resources that are related to specific outcomes. The model provides evidence that job demands are related to the exhaustion component of burnout, whereas (lack of) job resources are primarily related to disengagement.

Schaufeli and Salanova (2014) argue that work environments can facilitate climates for individual and collective engagement that means vigour, dedication and absorption at team or group level. Job demands are the physical, psychological, social, or organisational aspects of the job that require sustained physical and/or psychological

effort or skills, and are associated with physiological or psychological costs (Bakker *et al.*, 2014). Physical job demands include the physical, social, and organisational aspects of the job that require mental and physical effort for effective job performance (Du Plooy & Roodt, 2010, p. 501; Stander & Rothmann, 2010).

The practical work conditions of the nurses to be considered in this study are job demands and job resources (Bakker *et al.*, 2014; Bakker *et al.*, 2010; Demerouti, Bakker, Nachreiner, & Schaufeli, 2000; Van Bogaert *et al.*, 2013).

The factors of job demands and job resources are discussed in detail in the sub-sections below.

3.5.1.1 Job demands

Job demands, according to the conceptual model of burnout and life satisfaction by Bakker *et al.* (2014) include contacts with clients/ patients, high time pressure, high physical and cognitive workload, unfavourable environmental conditions, and work schedules (shift operations). Additionally, Schaufeli and Salanova (2014). in discussing the JD-R model, assume job demands to include role-overload, organisational constraints and role conflict as important influencing factors related to the work outcome.

Exposure to these factors showed adverse effects on job satisfaction, turnover intention, work engagement, and other negative outcomes (Schaufeli & Salanova, 2014). A study by McQuide, Kolehmainen-Aitken, and Forster (2013) identified challenges in implementing the national application of the Workload Indicators of Staffing Need (WISN) method in Namibia. The study also highlighted health worker shortages and inequities in their distribution in different work departments and geographical locations. Staff shortages led to the overloading of the existing employees with essential tasks that need to be performed.

Van Bogaert *et al.* (2013), in a study on the interaction between work engagement, workforce stability and quality of care, reported that an unfavourable nurse practice work environment negatively affected work engagement, and in turn, low work engagement was associated with other negative work outcomes. Thus, quality of care is determined by dedication, absorption, nurse–physician relations, and nurse management (Schaufeli & Salanova, 2014). The study also suggests that differences in vigour, dedication and absorption across teams, associated with practice

environment characteristics, impact nurses' job satisfaction, intention to stay and perceptions of quality of care (Van Bogaert *et al.*, 2013).

A study among European intensive care nurses found that nurses' perception of work pressure results from emotional and physical demands, threats from patients and relatives, lack of social support and autonomy (Van Dam, Meewis & Van der Heijden, 2013). Physically, nurses perform tasks that expose them to ill health, such as musculoskeletal disorders and infectious diseases (Cho, Park, Jeon, Chang, & Hong, 2014; Heiden, Weigi, Angerer & Muller, 2013). Individuals are less likely to be engaged if they are performing tasks that they perceive as detrimental to their own individual health.

In adverse working conditions, individual nurses in the Khomas Region of Namibia could be less likely to be engaged. These conditions include nurses' feeling disempowered, disrespected, lacking support and autonomy, experiencing work pressure and poor communication that may also affect the quality of nursing care (McQuide *et al.*, 2013).

3.5.1.2 Job resources

Job resources, on the other hand, are the physical, psychological, social, or organisational aspects of the job (Bakker *et al.*, 2010). This includes skill utilisation, learning opportunities, autonomy, colleague support, leader support, performance feedback, participation in decision-making, and career opportunities that function to reduce job demands, enable achievement of work goals, and/or stimulate personal growth, learning, and development (Bakker, Demerouti, Taris, Schaufeli, & Schreurs, 2003; Bakker *et al.*, 2010). Job resources are also important for effective task performance and continuous improvement of quality of nursing care.

Schaufeli and Salanova (2014) propose that job resources introduce a motivational process that may lead to work engagement and positive organisational outcomes. The COR theory presupposes that the resources impacting work engagement include having a home, food, tools, work conditions of tenure, support and job control, as well as personal characteristics, such as competencies and self-efficacy and energies of time and money (Schaufeli & Taris, 2014). Moreover (Salanova *et al.*, 2010), on the Social Cognitive Theory (SCT) assume that personal resources, such as self-efficacy, are positively related to work engagement.

The Broaden and Build Theory (BBT) presumes that positive emotions build individual resources that promote well-being and adaptation (Schaufeli & Taris, 2014). Furthermore, reciprocal relationships exist between personal and task resources, suggesting that they reinforce each other, thus fostering resource accumulation. Additionally, the nursing work includes other resources, such as psychological empowerment through the ability to work in teams, decision-making latitude, cooperation with other employees, respect from colleagues and effective communication skills (Stander & Rothmann, 2010; Sun *et al.*, 2012).

A study of psychological empowerment, job insecurity and employee engagement by Stander and Rothmann (2010) established that affective job security leads to work engagement. Therefore, employee empowerment may be viewed as a job resource that enhances work engagement. In their study on consultancy and construction workers, Alfes *et al.* (2013) examined the influence of job design through engagement, on task performance (motivating job), and concluded that such jobs lead to work engagement. The aforementioned authors further posit that when a job involves a variety of tasks, the employee may be challenged but also experience a sense of energetic connection with work activities.

Furthermore, job autonomy leads to the psychological ownership of the work because the work outcomes of an employee with high levels of autonomy depend on the individual's effort and decisions, rather than on instructions from a supervisor or set job procedures (Alfes *et al.*, 2013). Autonomy in jobs may lead employees to invest effort and to persist in the face of obstacles, which is a sign of engagement (Alfes *et al.*, 2013). Enthusiasm in terms of task performance is positively affected by employees' latitude in decision-making (autonomy) and job design, which also reduces levels of fatigue (Bakker *et al.*, 2014) and boosts higher levels of performance. Moreover, job design is viewed as job resources that prevent the development of negative work attitudes and predict work engagement among nurses.

Other job resources may include job crafting in which employees engaged in their work actively change their work environment to perform effectively (Siddiqi, 2015). Furthermore, employees may craft their jobs by actively changing the content or design of their jobs by choosing tasks, negotiating different job content, and assigning meaning to their tasks or jobs (Bakker, Demerouti & Sanz-Vergel, 2014). Thus, job

crafting allows employee to increase their personal-job fit and enhance the meaningfulness of their work (Siddiqi, 2015).

Among teams, collaborative job crafting was found to relate positively to team efficacy, team control, and team interdependence, which in turn, were found to relate positively to work engagement and team performance (McClelland, Leach, Clegg, & McGowan, 2014). Furthermore, the authors support the notion that large teams with challenges to overcome are able to engage in collaborative crafting, even under conditions of low discretion, and are able to enhance creativity.

Siddiqi (2015) posits job crafting attitudes as antecedents of work engagement that lead to positive customer outcomes in the service industry. The author further argues that the job crafting attitudes of service employees, including increasing structural job resources and social resources, and decreasing hindering job demands, are pivotal antecedents to desired customer outcomes, while increasing challenging job demands to avoid boredom in the workplace. Additionally, Wingerden, Bakker and Derks (2016), in their test job crafting intervention, found that job crafting behaviour was considerably related to work engagement which affected in-role performance.

Professional and technical skills are important for effective job performance and well-being, including work engagement (Buitendach & Mohammed, 2011). Competency levels boost performance, which in turn, boosts self-efficacy and leads to resource accumulation (Schaufeli & Salanova, 2014).

Workload management is necessary to ensure that overload does not occur and negatively affect nurse engagement and commitment (Buitendach & Mohammed, 2011).

In effect, job crafting, job design, employee empowerment, skills and competencies are viewed as job resources impacting work engagement among nurses.

3.5.2 Employee characteristics and work engagement

Employee characteristics include personality types, competency, individual employee make up, experience, self-efficacy and ability to self-manage. Armon and Shirom (2011) speculated that the personality traits of agreeableness and conscientiousness predicted emotional and cognitive vigour among employees. Vigour is an element of engagement, as indicated by Bakker *et al.* (2014) and Schaufeli and Salanova (2014),

while, the interpersonal dimension of vigour, which includes the ability to empathise with others, is important for job effectiveness.

In their study on “factors of engagement in South Africa”, Van Bogaert *et al.* (2013) postulate that psychological meaningfulness and psychological availability were positively associated with work role-fit, co-worker and supervisor relations, facilitative norms and low self-consciousness. Additionally, employees who do not experience work role-fit tend to be less engaged and satisfied at work, and showed lower mental health (flourishing) (Wissing *et al.*, 2014).

Chaurasia and Shukla (2014) postulate that work role-fit, the availability of personal resources and social exchange with supervisors affect work engagement and job satisfaction, which in turn, play a role in the employees flourishing. Additionally, according to Bakker *et al.* (2014), job resources such as skill utilisation, learning opportunities, autonomy, colleague support, leader support, performance feedback, participation in decision-making and career opportunities, predicted task enjoyment and organisational commitment, particularly under conditions of high job demands (workload and emotional demands).

Akhtar, Boustani, Tsivrikos and Chamorro-Premuzic (2015) postulate that employees differ in their tendencies to engage, and that emotional intelligence plays a part in work engagement. Personality traits that affect work engagement include openness to experience, interpersonal sensitivity, ambition, extraversion, adjustment, and conscientiousness, as predictors of engagement (Akhtar *et al.*, 2015). Openness extraversion, conscientiousness, adjustment, ambition, and interpersonal sensitivity are linked to the personal resources that lead to resiliency in an individual (Akhtar *et al.*, 2015). Furthermore, Akhtar *et al.* (2015) argue that resilient individuals are able to successfully control their environment, which gives them intrinsic motivation to pursue their goals. HR practitioners could then focus on recruiting individuals with engaging personality traits, and implement interventions for engagement for those already in the workplace.

Among nurses, the targets for commitment include patient, organisation, tasks and profession. At the individual level, a nurse can therefore commit him/herself to one or two targets at the same time, if the target is evaluated positively (Van Bogaert *et al.*,

2013). Commitment is characterised by responsibility and dedication towards the target/s. Commitment is a term used in explaining dedication, which is one of the sub-dimensions of work engagement. Klein *et al.* (2012) view commitment on a continuum, with identification on the left and commitment to the right. In identification, individuals merge self with target (Klein *et al.*, 2012, p. 1), while commitment is viewed as a psychological bond manifested by volitional dedication and responsibility for a target that must be noticed and embraced. Thus, individuals need to show care and concern for the target.

Additionally, Klein *et al.* (2012) envisioned social commitment as a psychological, dynamic state created within an individual resulting from the perception and interpretation of one's situation. Individuals can be concurrently committed to multiple targets reflecting different interests and focal points, including organisations, teams, programmes, decisions, and so forth (Klein *et al.*, 2012).

In Namibia, nurses might possibly be committed to tasks, patients, organisation or profession. The commitment can be for one or more targets at a time. It is therefore possible to find that an individual is committed to job but not to organisation or career, or may be committed to all three at the same time. Their commitment is affected by their perception of the target, as indicated above. Nurses are expected to be committed to the following targets, namely, patient, organisation, tasks and profession. At the individual level, a nurse can therefore commit him/herself to one or two targets at the same time when the target is being evaluated positively (Klein *et al.*, 2012). Commitment is characterised by responsibility and dedication towards the target/s.

Research by Chen, Zhang and Wang (2014) showed that empowering leadership can enhance employees' performance by providing those employees with increased autonomy and opportunities to participate in decision-making. According to Ryan and Deci (2001), feeling competent and confident (empowered) is associated with enhanced intrinsic motivation and well-being. Empowered employees regard their work as important to them and feel that it contributes to the greater good of society (impact) (Chen *et al.*, 2014).

Participative decision-making is part of empowering employees and is characterised by authority delegation (Chen, Eberly, Chiang, Farh, & Cheng, 2014). When

supervisors share power, they enhance their subordinates' work engagement through increased autonomy, participative decision-making, and more support to the subordinates (Fong & Ng, 2012). Increased autonomy is also a job resource that enhances subordinates' evaluation of their job control. Job control, according to the SDT, can boost the employees' devotion to their tasks (Chen *et al.*, 2014; Gagne & Deci, 2005; Secomb, McKenna, & Smith, 2012).

On the relationship between work climate and negative work outcomes among mental health workers, Fong, Ho, Au-Yeung, Sing, Law, Lee and Ng (2016) recognise that workers face heavy emotional demands that make them prone to burnout. As workers acquired job resources by experience in their organisations, this sense-making process improves the employees' abilities to cope with the work demands and they therefore remain engaged, despite experiencing challenges (Fong *et al.*, 2016).

Nurses in the Namibian health care system may be facing a work environment where resources are scarce, poor staffing leads to work overload, there is a lack of autonomy and empowerment, which may lead to employees experiencing a lack of psychological significance and psychological availability, which in turn, affects the quality of patient care (Chen *et al.*, 2014). In this study, personal resources (personality types, competency, individual employee make up, experience, self-efficacy and ability to self-manage) are viewed as work engagement enablers.

3.5.3 Supervisor skills, collegiality and work engagement

Supervisor skills and the ability to motivate employees to take ownership of work processes and practices help employees to remain engaged. Li and Qi (2015) suggest that engaging leaders display emotional intelligence and take decisions that facilitate employees taking more responsibilities, and enable employees to be more creative and innovative to drive the organisation to higher levels.

A culture of fairness and trust is positively related to employee engagement, as proposed by Steffens, Haslam, Kerschreiter, Schuh and Van Dick (2014), while empowerment, recognition and supportive feedback are drivers of work engagement. Gevers and Demerouti (2013) established that individuals who scored high on the deadline action pacing style, had higher task absorption as a result of their supervisors' temporal reminders.

Research on public sector managers in South Africa confirmed a gap relating to the lack of management capacity in nursing management in the public health sector (Pillay, 2011). Critical skills that are lacking included lack of control, leading, organising and self-management, which are the most important competences lacking in South African nurse managers. Li and Qi (2015) put forward that supervisor power sharing enhanced their subordinates' performance, with work engagement acting as a moderator. In an environment lacking in management capacity, power sharing among supervisors and subordinates may not be present. Lack of power sharing may lead to poor performance among subordinates who may feel disempowered (Steffens *et al.*, 2014).

According to Chaurasia and Shukla (2014), enhanced quality of relationship between supervisor/ manager and subordinates leads to employee engagement and better performance in various work roles performed in the organisation. Furthermore, in a study on the effect of justice and leadership on work engagement, Steffens *et al.* (2014) concluded that support from supervisors is an important predictor of work engagement among nurses. Kodama and Fukahori, (2017) also indicated that supervisor support was positively related to work engagement, even though co-worker support had less effect.

3.6 DEMOGRAPHICS AND WORK ENGAGEMENT

The demographic characteristics considered in this study are gender, age, race/ ethnicity, educational background; work history, position held, marital status, and whether the employee works for the government or private sector.

In her presentation in an occupational health forum, Schaufeli (2011) indicated a weak positive relationship between demographics and work engagement and no systematic gender differences. However, differences in the levels of engagement between professions have been confirmed. For example, in studies on the IT industry in India, Sharma *et al.* (2017) found that work engagement differed significantly with age, education level and experience. Work engagement was best predicted by gender and education, with males being more engaged than females in the IT industry. Also, according to Fong and Ng (2012), Chinese nurses had considerably lower levels of work engagement than their Norwegian and Spanish counterparts.

The sections below will discuss the demographic characteristics as relevant to the current study.

3.6.1 Age, gender and work engagement

In validating the Chinese version of the Utrecht Work Engagement Scale (UWES), Fong and Ng (2012) found that female workers appeared to have higher levels of engagement than male workers did, while older workers reported significantly higher levels of engagement than younger workers did. Among academics, Bezuidenhout and Cilliers (2011) confirm that there is a positive relationship between older academic females and coherence, absorption and vigour. Older academics preferred flexibility and autonomy in the workplace that may not be available to nurses.

Lather and Jain (2015), in their study of the impact of leadership on employees' engagement, maintained that employees felt more engaged when their leaders practised democratic control. Males preferred only democratic control, while females sought facilitative support, challenging work and focus on their career development. With regard to age, employees below 35 years preferred leadership to focus on their career, while employees aged above 35 years sought control from their leaders (Lather & Jain, 2015). With regards to the correlation of age to the physical job demands, Heiden *et al.* (2013) found that age is positively correlated with negative nurse health outcomes, such as musculoskeletal disorders. The older the nurses, the higher the incidence of musculoskeletal disorders that could be associated with uncomfortable body postures in the process of job performance.

In a comparative study between young and older workers, Zaniboni, Truxillo, Fraccaroli, McCune and Bertolino (2014) concluded that engagement was positively correlated with task variety, and correlation was stronger among younger workers than older ones. In line with the social-emotional selectivity theory, younger workers were more attracted to knowledge acquisition goals and broadening their job skills than older workers. Moreover, task variety was more strongly associated with the affective and cognitive involvement with the job in younger workers. Older workers were less interested in job aspects perceived not to enhance the use of individual resources, to compensate and cope with those aspects or domains (Zaniboni *et al.*, 2014). Thus, older workers were more engaged with complex tasks than variety of tasks.

In their study on the effect of demographics on work engagement and organisational support, Sahin, Çubuk and Uslu (2014) suggested that older male managers were positively related to the self-efficacy, hope, resilience and general optimism scales than their female counterparts. Among Turkish women managers and professionals, Koyuncu, Burke and Fiksenbaum (2006) posit that women's work situations are characterised by higher levels of control, reward and recognition, and value fit is positively correlated with vigour and dedication, while those indicating greater workloads also reported greater absorption.

Although the diversity of age categories of academic staff is higher than for nurses, age and experience are important for skills development, which has a direct bearing on individual work engagement and performance (Sahin *et al.*, 2014). Nursing is a predominantly female profession (Lane, 2000) and so most respondents are expected to be female.

3.6.2 Education levels and position on work engagement

Fong and Ng (2012) concluded that nurses in the support ranks showed significantly higher levels of engagement than respondents in the professional ranks. This suggests that frontline workers were more engaged to their jobs than management/professional workers were. In a study which evaluated the nursing work environment and job outcomes, Stalpers, De Brouwer, Kaljouw and Schuurmans (2015) reported higher nurse education and experience were related to fewer negative patient outcomes, such as patient falls, while lower experience was related to more patient falls and nurse ill health. Experience helps nurses to use the learnt competencies in favour of better performance. Organisations can exploit the experiences and competencies of workers for their competitive advantage. In addition, experience and competencies can promote the transfer of knowledge and skills to less experienced nurses through mentoring and coaching programmes (Zaniboni *et al.*, 2014).

Sun *et al.* (2012) found that transformational leadership was positively related to structural empowerment, which in its turn, positively correlated with psychological empowerment, leading to increased subordinate creativity. An analysis done by Neff, Cimiotti, Heusinger and Aiken (2011) of nurse reports from the frontlines indicated that nurse education levels are associated with patient outcomes. Thus, higher nurse

educational attainment results in better quality of care, a shorter patient recovery period, and lower mortality rate. Education levels and work experience can be viewed as job resources that contribute positively to work engagement.

In their study of vigour and dedication among nurses, Jenaro, Flores, Orgaz and Cruz (2011) concluded that there were no effects to be discerned in terms of length of service or professional category on levels of engagement, but nurse managers scored higher on stress. They, however, found that job satisfaction, job position, quality of working life and lower dysfunction predicted higher scores of vigour and dedication among nurses (Jenaro *et al.*, 2011).

In later investigations, Andreassen, Ursin, Eriksen and Pallesen (2012) established that managers and subordinates who scored higher on narcissism also had higher scores on enjoyment of work and work engagement. Narcissism was also found to be positively related to enjoyment of work and work engagement, but unrelated to drive. In addition, managers reported higher levels of narcissism, drive, enjoyment of work, and work engagement than did subordinates (Andreassen *et al.*, 2012). This indicates that the managers were more absorbed by their work both in a positive (enjoyment of work, work engagement) and in negative (drive) manner than their subordinates.

3.6.3 Marital status, type of organisation and work engagement

Marital status can be viewed as a personal support system that may affect individual employee performance. Work engagement has been positively and moderately associated with the holistic care climate, which indicates that promoting the culture of holistic care in the workplace could enhance the level of work engagement (Fong & Ng, 2012). Further, Jenaro *et al.* (2011) indicated that psychological adjustment is a predictor of work engagement.

In an earlier study on workaholism, burnout and work engagement, Schaufeli, Taris and Van Rhenen (2008) suggested that levels of marital estrangement were relatively high among workaholics. They further argued that engaged employees do not neglect their social life outside work; rather, they spend time on socialising, hobbies, and work as volunteers. Sahin *et al.*'s (2014) analysis indicated that having a fulfilling job has a positive impact on employee family life.

The underlying motivation for being completely immersed in one's work among engaged employees is intrinsic (work is fun), whereas in the case of workaholism it is compulsive (being driven to work) (Schaufeli *et al.*, 2008). Workaholics work hard regardless of the feelings they have towards their work. Additionally, managers who scored high on work engagement enjoyed good mental health, smooth social functioning and were resourceful in their jobs, with positive outcomes despite working for long hours. On the contrary, managers high on workaholism worked hard and scored high on burnout, however, they were committed to the organisation as well (Sahin *et al.*, 2014).

Social support is an important job resource and contributes to work engagement levels among nurses (Othman & Nasurdin, 2013; Schaufeli *et al.*, 2008). Organisational resources are also important, not only for work engagement, but also for quality of care (Schaufeli & Salanova, 2014). This study focused on both government and privately owned organisations. In terms of resources, the government-owned organisations were expected to have fewer resources than private organisations. This then might contribute to significant statistical differences in scoring between employees from the different organisations.

3.7 SUMMARY OF CHAPTER 3

In summary, work engagement has been portrayed as a construct with three sub-dimensions within the positive work environment (Schaufeli & Salanova, 2014). Kahn (1990) conceptualised engagement as when employees connect themselves to their work roles. People employ and express themselves physically, cognitively, emotionally and mentally during role performances. Vigour is characterised by the fact that employees continue to work and put in a lot of effort in work-related tasks, despite experiencing difficulties. Dedication means to be enthusiastic, feel pride and being involved in one's work. Absorption indicates a strong desire to devote time and undivided concentration to work-related tasks.

The factors of engagement that emanated from the four areas, namely, employee characteristics, work conditions, supervisor skills and collegiality were discussed (Cooper-Thomas *et al.*, 2010; Kahn, 1990; Macey *et al.*, 2009; Schaufeli & Salanova, 2014). Additionally, demographic characteristics, such as gender, age, race/ ethnicity,

education background; work history, position held and marital status, were found to affect levels of work engagement. Differences in the levels of engagement between professions have been confirmed, and finally, Schaufeli (2011) indicated a weak positive relationship with age and work engagement. This partly concludes Research aim 2 as follows:

Research aim 1: To theoretically conceptualise the constructs of work calling orientation, work engagement and burnout, and their respective sub-dimensions.

Research aim 2: To identify the nature of the theoretical relationship between work calling orientation, work engagement and burnout, and their respective sub-dimensions.

The next chapter discusses burnout in relation to work calling orientation and work engagement, and the effect on employees in the workplace.

CHAPTER 4: BURNOUT

4.1 INTRODUCTION

Over the past decades, issues of work-related well-being, specifically burnout and work engagement, have received extensive publicity and have been subject to increasing research. Occupational burnout is a condition in which employees experience a “depletion of mental and emotional resources leading to indifference towards their jobs and feelings of under achieving in their job” (Maslach & Jackson, 1981, p. 99; Van Bogaert, Van Heusden, Timmermans & Franck, 2014). This study focused on burnout among nurses in the Khomas Region in Namibia.

This chapter deals with burnout within the context of health care, outlining the theoretical background and model development that forms the definitive boundary of this research. The chapter also deals with the general construct of burnout from different perspectives and its relations to the demographics characteristics.

4.2 HISTORICAL DEVELOPMENT OF THE CONSTRUCT BURNOUT

The historical development of burnout as a construct is founded in the research into stress (Hobfoll, 1989). This research into stress focused on the Conservation of Resource (COR) theory, which is based on the loss of four resources, namely, objects, conditions, personal characteristics and energy in the workplace. Hobfoll (1989) argued that stress is healthy for life, but prolonged and severe stress can lead to the breakdown of the individual’s biological system; a position supported by other authors (Prapanjaroensin, Patrician & Vance, 2017).

Hobfoll (2011) advanced the COR theory as one that emphasises the independent reality or ‘common appraisals’ shared by groups, organisations and cultures, while giving attention to stressors and challenges that occur (Demerouti, Bakker & Fried, 2012). These stressors and challenges threaten the loss of resources, or lack of resources, that were gained following the investment of resources to deal with the challenges and stressors. Furthermore, the COR theory explains that burnout will occur as a result of the perceived or actual loss of these four resources, and this could affect nurse work performance, leading to lower alertness and overall quality of care (Prapanjaroensin *et al.*, 2017).

The concept of burnout can be traced back to when Freudenberger described it as "feelings of failure and being worn or pressed out, resulting from an overload of claims on energy, on personal resources, or on the spiritual strength of the worker" (Schaufeli & Maslach, 1993, p. 2). Freudenberger (1977) introduced the construct of burnout as a condition where employees are fatigued, depressed, cynical, rigid, irritable and unproductive, despite extra effort and time in task performance. This is not a situation that occurs suddenly; it rather develops gradually when an individual works harder and longer, yet achieves less (Schaufeli & Taris, 2014).

The situation may arise from the commitment and dedication to personal goals (such as insecure and unfulfilled individuals taking a job to achieve security and fulfilment and then it does not live up to their expectations) that may be different from the organisational goals (Van Bogaert *et al.*, 2014). Job burnout is an important psychological concept regularly faced by employees, especially in human services, and has inspired researchers and practitioners to find out ways of effectively managing it (Maslach & Schaufeli, 1993; Van Bogaert *et al.*, 2014).

According to the COR theory, people have a fixed pool of resources, which include conditions or energies valued by the individuals (Hobfoll, 2011; Prapanjaroensin *et al.*, 2017). The depletion of these resources can lead to emotional exhaustion, which is a response to stress and loss of important resources (Maslach & Jackson, 1981). Emotional exhaustion resulting from the depletion resources can lead to poor or ineffective performance. Effective performance in every job therefore requires specific resources, such as knowledge, skills and abilities within the right organisational context and at specific given times (Schaufeli & Taris, 2014). Task performance outcomes can be either positive or negative, depending on availability of resources.

Consequently, burnout comes from a gap between what individuals consider to be the ideal and the reality of the working environment. It is a state of mental, physical and emotional exhaustion due to excessive chronic involvement accentuated in over-demanding emotional situations (Maslach & Jackson, 1981; Schaufeli & Taris, 2014). Schaufeli, Leiter and Maslach (2009) indicate that burnout continues to gain recognition from both researchers and practitioners as a construct that indicates social problems worth investigating to find ways and means of preventing it, and to help employees to cope, and to make improvement to the work environment.

The JD-R model is also used to explain burnout. The model explains the outcomes of burnout as “a result of an imbalance between the job demands on the individual and the resources available for him or her to deal with the said demands” (Xu & Cooper-Thomas, 2011, pp. 162). In an exposition of the JD-R model, Demerouti *et al.* (2012) demonstrated that job demands are primarily related to the exhaustion component of burnout, whereas (lack of) job resources are primarily related to disengagement. An imbalance between job demands and job resources results in poor job performance and negative work outcomes for employees (Schaufeli & Taris, 2014). Furthermore, Demerouti *et al.* (2012) classify job demands to embrace the physical, psychological, social and organisational aspects of the job that are associated with physiological and psychological costs, while job resources are working conditions that provide the properties to achieve set goals and to stimulate personal growth, learning and development in the process of job performance (Prapanjaroensin *et al.*, 2017).

Bakker *et al.* (2010), on testing the interaction of the JD-R model among employees working in different organisations, posit that employees endorse most positive work attitudes (task enjoyment and organisational commitment) when both job demands and job resources are high. Additionally, job resources (skill utilisation, learning opportunities, autonomy, colleague support, leader support, performance feedback, participation in decision-making, and career opportunities) predicted task enjoyment and organisational commitment, particularly under conditions of high job demands (workload and emotional demands) (Bakker *et al.*, 2010; Van Bogaert *et al.*, 2014).

Van Bogaert *et al.* (2014) discussed the practical job resources as aspects of the organisation, for example, co-workers and physicians in hospital context collaboration, teamwork, joint decision-making and problem-solving, work agreements marked by clear policies, procedures and approaches, the right number and quality of personnel, the availability of quality materials and instruments, work/home compatibility, job security and job reward satisfaction, can be considered as resources that nurses use to meet their job demands. However, Chou, Hecker and Martin (2012) outlined the perceived organisational support and employees’ beliefs that the organisation values their contributions and cares about their well-being as important practical resources for effective nurse performance.

4.3 CONCEPTUALISATION OF THE CONSTRUCT OF BURNOUT

In modern day places of work, employees have relationships with their work, customers, organisation environment, technology and colleagues, all of which affect employee work outcomes. Burnout is therefore a psychological syndrome in response to chronic stressors that was not there in the traditional agencies where work was considered a calling (Maslach *et al.*, 2001; Schaufeli & Taris, 2014). Schaufeli *et al.* (2009) reasoned that ideological communities, such as monasteries, Montessori schools and religious care centres provided a collective identity, social commitment and shared values that shielded individuals from suffering burnout.

Occupational burnout is a condition in which “employees experience the reduction of mental and emotional resources leading to unresponsiveness towards the jobs and feeling of under achieving among employees” (Maslach & Jackson, 1986 p. 99; Maslach *et al.*, 2001). Schaufeli and Taris (2014) further contend that burnout is the price to be paid for professionalising the helping professions from callings in modern occupations.

Workplace interactions can be positive or negative depending on several factors (Xu & Cooper-Thomas, 2011). Negative workplace relations can cause stress in employees. While stress is a healthy reaction to stressors, chronic stress may lead to burnout (Xu & Cooper-Thomas, 2011). As indicated in the JD-R model, an imbalance between job demands and job resources (for example, negative work experience) may lead to poor performance and burnout (Maslach *et al.*, 2001). Thus, work relationships can be a source of both emotional strain (negative work experiences) and reward (positive work experiences) when individuals use positive coping strategies (Prapanjaroensin *et al.*, 2017).

Maslach *et al.* (2001) suggested that most studies on burnout focus on human services where the focus is on the individuals’ emotions, motives and the values triggers and the effect it has on the recipient of services, co-workers and work environment. In differentiating the constructs of burnout, work engagement and workaholism, Schaufeli and Taris (2014) contend that the construct of burnout is a negative state of weariness in which employees show low involvement and enjoyment of tasks but high on drive to perform. This state may result from work overload, poor resources and lack

of control which in turn leads to poor social functioning, negative work outcomes and poor perceived health (Schaufeli & Taris, 2014).

Brand-Labuschagne, Mostert, Rothmann Jr. and Rothmann (2013, p. 61) affirm that burnout has been defined as “a persistent, negative, work-related state of mind primarily characterised by exhaustion, distress, sense of reduced effectiveness, reduced motivation and dysfunctional attitudes and behaviours at work”. The authors contend that burnout consists of core dimensions, which include fatigue and individual stress resulting from the depletion of emotional and physical resources (exhaustion) and indifferent/ negative attitude towards one’s work due to an inability to deal with the job demands (cynicism) (Morgan, De Bruin, & De Bruin, 2014).

Inefficacy is the opposite of efficacy which is described in “Bandura’s personality theory as the beliefs a person has about their ability to carry out the behaviours needed to reach certain desired outcomes” (Swartz *et al.*, 2016, pp. 131-132). Brand-Labuschagne *et al.* (2013) deliberate that professional efficacy is a personality trait that has less important connections to burnout and that develops independently of exhaustion and cynicism, the two other burnout constructs.

Longitudinal studies by Taris, Le Blanc, Schaufeli and Schreurs (2005) revealed that high levels of exhaustion were associated with depersonalisation. Further high levels of depersonalisation led to higher levels of emotional exhaustion and lower levels of personal accomplishment (Leiter & Maslach, 2016). Exhaustion is the predominant element and the most obvious manifestation of burnout (Xu & Cooper-Thomas, 2011). Human services can be very demanding and involving, therefore emotional exhaustion is a common response to negative job influences, for example, work overload (Leiter & Maslach, 2016).

Burnout is conceptualised as a phenomenon with the three key dimensions of overwhelming exhaustion, feelings of cynicism and detachment (depersonalisation) from the job, and a sense of ineffectiveness and lack of accomplishment (Bakker *et al.*, 2010; Leiter & Maslach, 2016; Maslach & Leiter, 2016). Organisational situations that lead to exhaustion and reduced professional efficacy include the following: situations where employees struggle to survive complex, contradictory and hostile environments; organisations proclaim superior standards that far exceed job

resources, while no attention is given to support employees (Doulougeri, Georganta, & Montgomery, 2016; Maslach & Leiter, 2016). Furthermore, isolation (depersonalisation) from corporate values reduces employee involvement in their work or their clients. It also makes employees vulnerable to exhaustion, cynicism, and inefficacy that of itself, define burnout (Maslach & Leiter, 2016; Roberts & Zigarmi, 2014).

This study focuses on burnout in the workplace as related to employees, organisations and service recipients in the Namibian health care sector. The construct is diagrammatically represented in Figure 4.1 below.

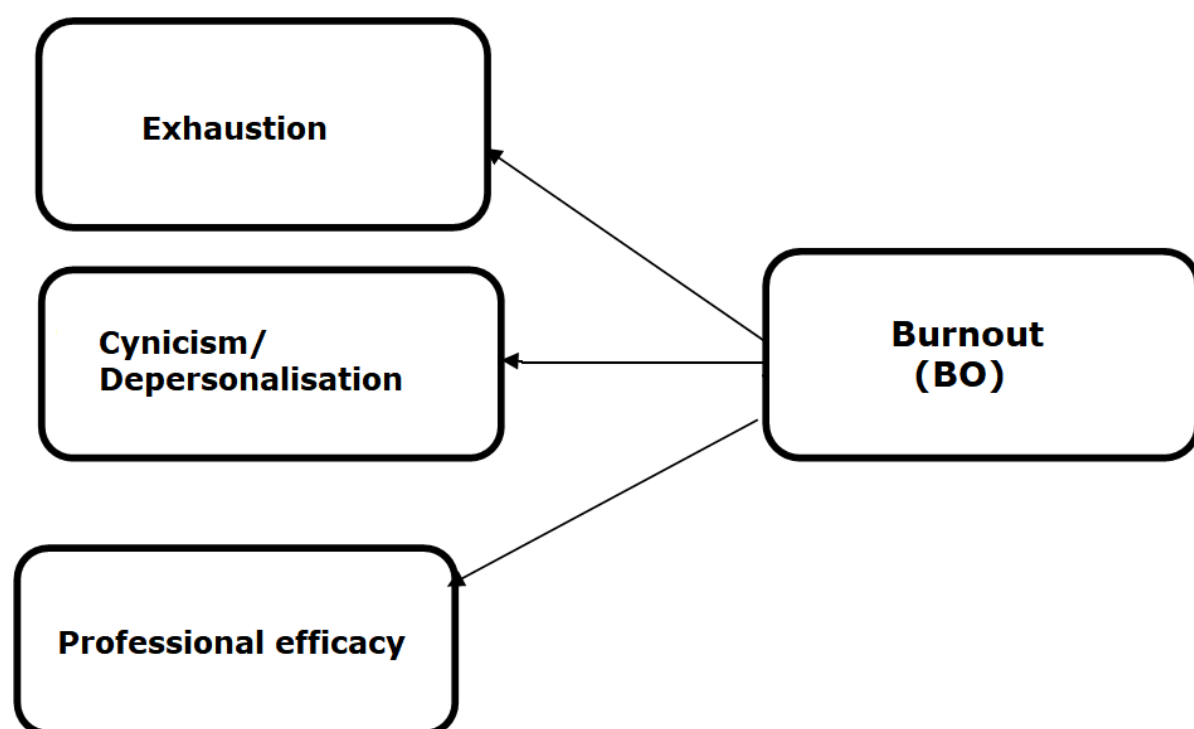


Figure 4.1:
The burnout construct with its sub-dimensions

Source: Maslach *et al.*, 2001

Figure 4.1 reflects the three sub-dimensions of burnout as emotional exhaustion, cynicism/ depersonalisation and professional efficacy which will be discussed in detail in the sections below.

4.3.1 Sub-dimensions of burnout

The current study adopted the definition of burnout as the three key dimensions of overwhelming “emotional exhaustion, feelings of cynicism and detachment from the

job and a sense of ineffectiveness and lack of accomplishment” (Leiter & Maslach, 2016; Maslach, Roberts, & Zigarmi, 2014; Xu & Cooper-Thomas, 2011, p. 4).

- Emotional exhaustion/ fatigue indicates “strain on the part of individual or feeling of being over-extended and depletion of emotional and physical resources” (Steffens *et al.*, 2014).
- Cynicism and depersonalisation is evidenced by a “negative, callous and detached response to work and environment” (Maslach *et al.*, 2001, p. 399; Stewart & Terry, 2014).
- Inefficacy or reduced accomplishment represents “self-evaluation of incompetence, lack of achievement and productivity” (Maslach *et al.*, 2014).

These sub-dimensions are discussed below.

4.3.1.1 Emotional exhaustion

Leiter and Maslach (2005) conceptualised emotional exhaustion as the opposite of energy (vigour, one of the elements of engagement), which is measured by feelings of weariness and irritation that are related with daily work pressure. Kim and Park (2015) explain emotional exhaustion as an attitude of employees’ internal susceptibility or defencelessness in which they can no longer perform their tasks effectively as a result of prolonged (chronic) stress (Upadyaya, Vartiainen, & Salmela-Aro, 2016).

Negative attitudes develop as a result of several stressors, including the work environment, interpersonal relations, leadership styles and personal characteristics (Upadyaya *et al.*, 2016). Thus, Kim and Park (2015) posit that undesirable work events, interpersonal conflicts, bad leader-member interaction, individuals’ negative attitudes and internal vulnerability are factors that contribute to burnout and lack of organisational commitment. Kim and Park (2015) further concluded that poor role performance could result when emotionally exhausted employees are working with a leader whose style is transactional and where there is high leader, member exchange (LMX). This implies that employees’ performance can be negatively affected by emotional exhaustion resulting from a perceived negative relationship with leaders.

When working relations in an organisation (between the employee, the patient, student, co-workers, the organisation and the public) become less rewarding,

depletion of emotional and physical resources culminate in negative attitudes and behaviour towards service recipients (Ogungbamila, 2013; Upadyaya *et al.*, 2016). According to Ogungbamila's (2013) study, the service recipients include patients, students, co-workers, the organisation and the public in Nigerian public hospitals. However, as long as there is a positive balance between job demands and rewards, the employees feel energetic and satisfied with their jobs (Upadyaya *et al.*, 2016).

Additionally, Ogungbamila (2013) reports that instead of being rewarded, human service employees often contend with public criticism, over-demanding patients and students/clients leading to emotional exhaustion. Furthermore, the aforementioned author suggests several factors that contribute to the high levels of emotional exhaustion among health care workers may be associated with the heavy workload resulting from acute shortage of health workers, combined with low pay, inadequate and insufficient hospital equipment/supplies in Nigerian public hospitals (Ogungbamila, 2013).

Baer, Dhensa-Kahlon, Colquitt, Rodell, Outlaw and Long (2015) contend that emotional exhaustion is linked to low levels of staff nurse job satisfaction, and that it discourages nurses' psychological involvement in work, that in turn, leads to dissatisfaction and withdrawal from the organisation, and it may potentially lead to intentions to resign from their jobs.

The exhaustion component of burnout represents the basic individual strain dimension of burnout (Baer *et al.*, 2015). It refers to feelings of being overextended and depleted of one's emotional and physical resources. This leads to dysfunctional elements, such as fatigue, cognitive weariness, negative job attitude, poor health conditions for the employee, higher turnover, and lowered performance, which in effect lead to poor service delivery (Baer *et al.*, 2015; Stewart & Terry, 2014).

Exhaustion is therefore not just experienced, "but prompts individuals to detach themselves emotionally and cognitively" (Baer *et al.*, 2015; Xu & Cooper-Thomas, 2011) from work, customers (patients) or organisations as a way of coping. Within the human services, including the nursing profession, the emotional demands of work can exhaust the care providers' ability to be involved and responsive to the needs of service recipients (Boamah & Laschinger, 2016).

4.3.1.2 Cynicism/ Depersonalisation

Maslach *et al.* (2001, p. 399) expound the burnout component of cynicism (or depersonalisation) to “represent the interpersonal context dimension of burnout and refers to a negative, callous, or excessively detached response to various aspects of the job” (Kasalak & Aksu, 2014). Depersonalisation is an attempt to create distance between the service provider and recipient by ignoring the qualities that make individuals unique and pleasing people (Kim & Park, 2015; Xu & Cooper-Thomas, 2011).

In their study on organisational cynicism, Kasalak and Aksu (2014) established that cynicism was negatively correlated with organisational identification, commitment and citizenship but positively correlated with intended turnover and perception of employee unfaithfulness (Kim & Park, 2015). In cynicism, individuals yield to impulses and engage in maladaptive behaviour when self-regulatory resources are depleted (Lisjak & Lee, 2014). It can be assumed that one feels depersonalised towards other people (co-workers or service recipients) but feels cynical towards something (organisation, policies and systems) and inefficacious to do something (Kim & Park, 2015).

Van der Colff and Rothmann (2014, p. 631) explain depersonalisation as the “treatment of service recipients in a negative, cynical, detached and emotionally callous manner”. According to Brand-Labuschagne *et al.* (2013, p. 61), “cynicism reflects an indifference or negative attitude towards one’s work due to the inability to deal with job demands”.

In addition, Ogungbamila (2013) and Upadyaya *et al.* (2016) maintain that depersonalisation deals with the extent to which an employee displays negative attitudes and feels uncaring and psychologically detached from work, patients, pupils, other employees or individuals that one has been employed to care for (service recipients).

4.3.1.3 Professional efficacy

Professional efficacy represents “feelings of competence and achievement and productivity at work” (Swartz *et al.*, 2016, pp. 131-132). According to the social cognitive theory (Park & John, 2014), self-efficacy is an important self-regulatory mechanism that governs ongoing motivation and performance. Individual differences in experiencing self-efficacy indicate that some individuals believe that personal

qualities and abilities can be improved by their own efforts, while others believe that external boosts are needed to improve (Morgan *et al.*, 2014; Park & John, 2014). In contrast, individuals may experience inefficacy as a result of lack of personal resources or lack of external boosts (Morgan *et al.*, 2014).

Subsequently, self-efficacy beliefs increase the level of challenge people are willing to undertake, the amount of effort they expend in meeting those challenges, and the level of perseverance in the face of difficulties in completing the task, resulting in better performance (Morgan *et al.*, 2014; Park & John, 2014). Park and John, (2014) also posit that self-efficacy beliefs are based on a person's assessment of whether he or she has the ability to perform well in a specific task, and at a conscious level, it mediates better task performance.

In their research on entrepreneurial passion, Cardon and Kirk (2015) suggest that more self-efficacy for a particular activity should predict a greater passion for that activity, and that enjoyment is a key dimension of passion. Individuals are more likely to identify with activities they are confident in performing efficaciously (Shea-van-Fossen & Vredenburg, 2014).

Passion is a term that is also used in describing calling orientation in relation to vocational calling as a "sense of deep enjoyment and satisfaction with a specific work domain that gives individuals a strong sense of identity" (Dobrow, 2004, pp. 3-4; Shea-van-Fossen & Vredenburg, 2014). Gaan and Mohanty (2014, p. 56-58) also define passion as the "strong harmonious inclination towards self-defining activity that people love, feel devotion towards and into which they are willing to invest time and energy" (obsessive passion).

Furthermore, passion is a construct with the three-factor structure of work cognition, work affect and work rumination (Gaan & Mohanty, 2014, Shea-van-Fossen & Vredenburg, 2014). Cardon and Kirk (2015) concluded that passion for invention, creativity and development is mediated by self-efficacy and persistence. Entrepreneurs need to be passionate, in order to overcome the challenges inherent in starting and running a business. Additionally, Cardon and Kirk (2015) emphasised that the entrepreneurial passion for invention and creativity appears to mediate the relationship between entrepreneurial self-efficacy and persistence.

In contrast, Van der Colff and Rothmann (2014, p. 631) explain professional inefficacy (reduced personal accomplishment) as “negative self-evaluation of one’s abilities, the belief that objectives are not or cannot be reached, poor professional self-esteem and beliefs of insufficiency on the part of the employee”. The perception may be as a result of several factors, including inaccurate self-evaluation, setting unrealistic goals, low self-esteem and negative beliefs about self.

Inefficacy is the opposite of efficacy, described in Bandura’s personality theory as the “belief a person has about their ability to carry out the behaviours needed to reach certain desired outcomes” (Swartz *et al.*, 2016, pp. 131-132). Inefficacy is therefore, a low or lack of belief that one has the ability to perform or carry out the behaviours required to reach specific professional goals. There is a direct relationship between a person’s beliefs that they have what it takes to perform and the actual performance. According to Swartz *et al.* (2016) the less a person believes that they have the ability to perform, the less likely one will be able to perform to the expected outcomes, while the more a person believes that they have what it takes to perform, the more likely they are to perform to the expected outcomes and standards.

Schaufeli and Salanova (2014) illustrate the burnout component of inefficacy (or reduced accomplishment) as the self-evaluation dimension of burnout that refers to “feelings of incompetence, perceived lack of achievement and productivity in work”. Fast, Burris and Bartel (2014) refer to managerial self-efficacy as the perceived capacity to be effective and influential within the organisational domain in which one is a manager. For nurses, self-efficacy or self-inefficacy at a conscious level will affect the level of challenge they are willing to undertake, the amount of effort they expend in meeting work challenges, and the level of perseverance they are willing to expend in the face of difficulties in completing tasks (Morgan *et al.*, 2014). This may result in either effective performance or lack of performance in their jobs.

Opportunities for learning and developing skills may increase self-efficacy and performance, while lack of learning and development may increase self-inefficacy. Passion in the nursing profession and duties coupled with persistence can also affect the individual nurse performance positively. Passion may also lead to nurses coming up with creative ways (crafting) of meeting their patients’ health needs (Steffens *et al.*, 2014)

4.4 FACTORS CONTRIBUTING TO BURNOUT

Schaufeli *et al.* (2009) posit that globalisation brings changes to the nature of work and the context within which work is done. Although organisational management may have high ideals, they may not be supported by corresponding management actions that are employee-friendly. Instead, these actions may focus on fiscal, policy and political issues that are required to maintain the organisation's competitive advantage (Morgan *et al.*, 2014).

Economic changes have led to flexible capitalism in which individuals join professions not because they feel called, but because that is the only opportunity available to them, or the profession has higher economic rewards (Schaufeli *et al.*, 2009). This development encourages social fragmentation and the corrosion of character, a notion somewhat similar to burnout. Population changes in knowledge and sense of community, in which service recipients, especially of human services, demand more care, empathy and compassion increase the technical and emotional demands of professional workers (Van Bogaert *et al.*, 2014). From the social exchange theory perspective, Manzano-García and Ayala-Calvo (2013) posit there is a growing discrepancy between professional efforts and the rewards received in recognition of the efforts. This may lead to dissatisfied employees and affect job performance.

Manzano-García and Ayala-Calvo (2013) further suggest the development of a narcissistic (self-absorbed) culture in which people create personal definitions of their own social and occupational roles because society no longer provides shared definition of community. This leads to an absence of community support and the flourishing of individualism.

When work demands increase because of increased service recipients with more intense requirements, and when resources fail to keep pace, it results in insufficient personnel, equipment, supplies, or space to meet the increased demands (Ogunbamila, 2013; Van Bogaert *et al.*, 2014). Insufficient opportunities to rest and to regenerate the depleted energy also aggravate the exhausting impact of demand/resource imbalances among service providers (Van Bogaert *et al.*, 2014).

Thus, the attendance of job resources and personal characteristics to meet the job demands lead to personal evaluation to identify fulfilled or unfulfilled expectations. When the expectations are unfulfilled, employees are demotivated and this can lead

to burnout. To explain the diverse factors contributing to burnout, Manzano-García and Ayala-Calvo (2013) suggest an integrated multi-causal model that has been adapted for this study.

Figure 4.2 below presents the JD-R model to be considered for the cause and effect of burnout in the workplace.

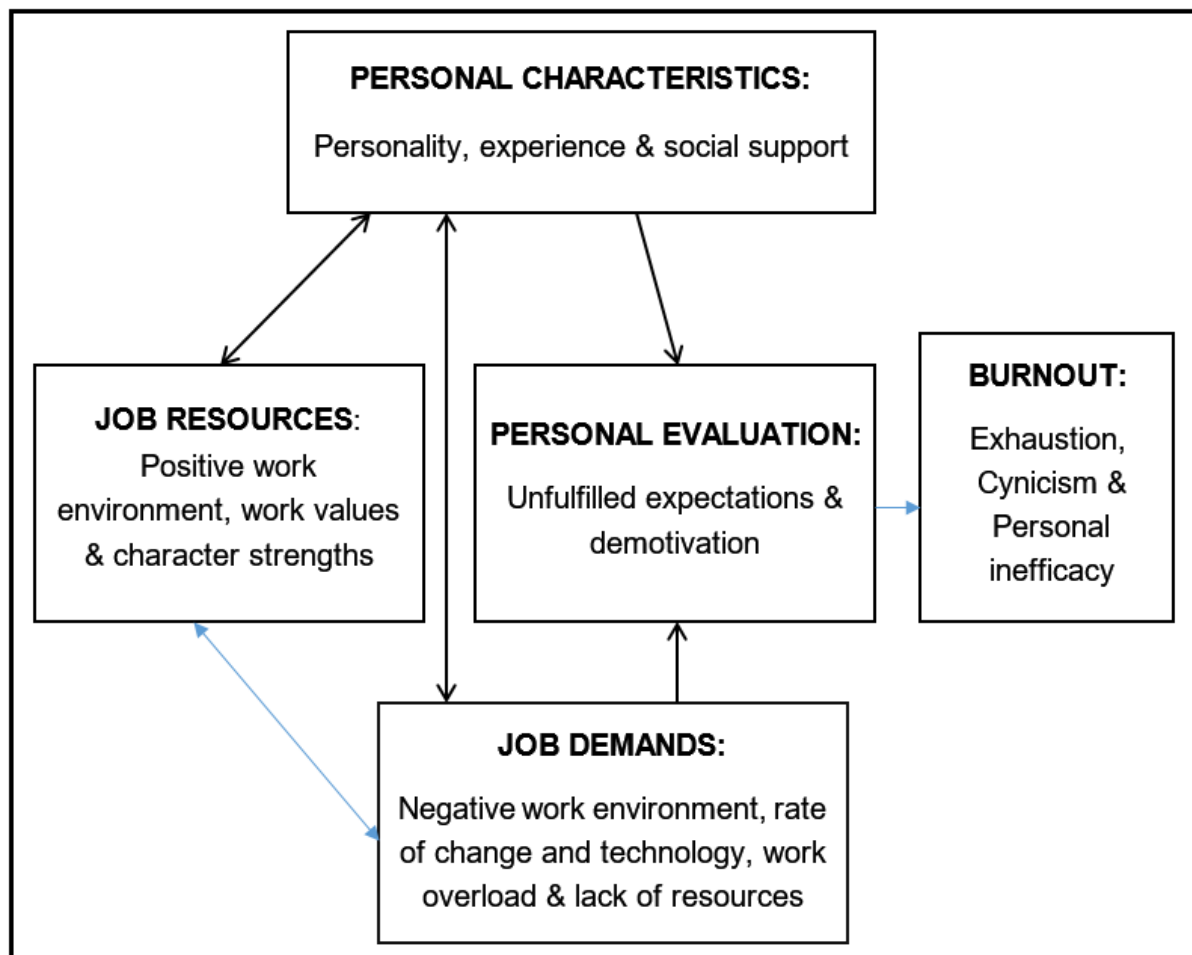


Figure 4.2:
Multi-causal integrated model of burnout syndrome in the workplace

Source: Adapted from Manzano-García & Ayala-Calvo, 2013

According to Rothmann and Cooper (2015, p. 223), burnout is “prolonged stress which leads to employees developing persistent negative attitudes towards work characterised by exhaustion, sense of reduced effectiveness and decreased motivation to perform”.

Among the factors contributing to burnout are workload, values and community (Van Bogaert *et al.*, 2014). Value incongruence leads to negative job attitudes, and even

burnout, when employees are expected to act in a manner contrary to their personal values (Blanco-Donoso *et al.*, 2016).

Ogunbamila (2013) asserts that the migration of the highly qualified people from Africa to developed countries is a major challenge leading to work overload for those left behind, especially in health care. Ogunbamila (2013) postulates that heavy workload due to the shortage of health workers, as a result of the migration of health workers to other countries, are some of the factors leading to employee burnout in Nigeria. In order to meet the Millennium Development Goals (MDGs) on health, African countries must not only focus on reducing the migration of health care workers but also endeavour to retain and enhance the functionality of the remaining ones (Ogunbamila, 2013; Perry *et al.*, 2014). These workers are over-burdened by the gap created by the acute shortage of nurses, and this may also affect the quality of the care they provide to their patients.

4.4.1 Personal characteristics and burnout

This section discusses aspects of the individual personality that affect employees' adaptation to the work environment. Thereafter, the aspect of experience deals with the number of years of work experience, life and interpersonal experience, while the aspect of social support looks at individual family interaction and support from colleagues and management in the organisation.

4.4.1.1 Personality

Personality is the "unique and relatively stable patterns of individual behaviour, thoughts and emotions expressed during human interactions" (Armon & Shirom, 2011, p. 619; Garbarino, Chiorri, & Magnavita, 2014, p. 297; Le, Donnellan, & Conger, 2014, pp. 44-45) that might be influenced by work conditions because of incidents of reward and punishment for particular behaviours. Le *et al.* (2014) suggest that personality may be an individual characteristic that influences vulnerability or resilience to job stress. Further, the authors maintain that personality traits help shape an individual's life experiences, which in turn facilitate the development of personality traits across the life span.

Van Mol, Kompanje, Benoit, Bakker and Nijkamp (2015, p. 2) redefine burnout as an "emotional and behavioural impairment" that results from the exposure to high levels of occupational stress. Individuals who are at risk of suffering burnout, usually have

some level of perfectionism and feel guilty if they do not perform as well as they would like to perform in their work (Van Mol *et al.*, 2015). Van Mol *et al.* (2015) propose that incidents of burnout can increase within a particular social context, especially from emotionally draining interaction with complaining colleagues or demanding clients. Furthermore, Van Mol *et al.* (2015, pp. 2-3) identified compassion fatigue as a “state of physical or psychological distress in caregivers, associated with a ‘helper syndrome’”. These incidents increase as a consequence of an ongoing and escalating process in a demanding relationship with needy individuals in human services.

Incidents of burnout may also result from continuous disappointing situations and lead to moral distress. Compassion fatigue among nurses can lead to diminished nurses’ empathy towards patients’ suffering and the lessened desire to help by showing compassion, because of diminished compassionate energy (exhaustion) (Van Mol *et al.*, 2015).

In this study, exceptional nurses’ qualities, such as resilience, empathy as opposed to sympathy, coping mechanisms or emotional intelligence (Gleichgerricht and Decety (2013) and environmental factors, such as training, perceived support, organisational culture, or the differences in the cultural backgrounds of individual nurses may mediate the increase of burnout among some nurses (Van Bogaert *et al.*, 2014). This information would be useful in the recruitment, placement and retention of nurses in Namibia, provided management take into account personality characteristics and create a positive work environment.

In a study of police officers in special work conditions, Garbarino *et al.* (2014) concluded that some personality traits of the Big Five Model may increase the strain induced by environmental stressors. For example, police officers who scored high on emotional stability (low neuroticism) had greater control over their work and showed significantly reduced mental and physical effort in their law enforcement activities. They were friendlier, perceived more support from colleagues and more intangible rewards for their work, and did not take work situations personally (Garbarino *et al.*, 2014). These officers had reduced stress levels. The police officers with high energy/extraversion reported greater work demands, and in turn, exerted personal effort and may have taken on more work than their colleagues did (Garbarino *et al.*, 2014).

On the Five Factor model of personality, Louw (2014) established that among police officers in South Africa, neuroticism was positively related to all three burnout dimensions. Extraversion was positively related to the vigour dimensions and negatively related to cognitive weariness. Further, agreeableness produced a significant negative relationship with emotional exhaustion and cognitive weariness but a significant positive relationship with vigour. Conscientiousness reflected a significant but weak negative relationship with emotional exhaustion and cognitive weariness. Openness to experience demonstrated a negative relationship with emotional exhaustion and cognitive weariness (Louw, 2014).

Volpone, Perry and Rubino (2013) found that the job demands of constraints, variety (wide range of operations and tools) and time spent on hobbies had the highest effects on various dimensions of burnout. Furthermore, job constraints had an impact on cynicism when employees' perceived the organisation as dishonest and uncaring (Van Mol *et al.*, 2015). Moreover, variety was associated with reduced professional efficacy, while conscientiousness and emotional stability traits acted as internal (personal) resources that moderated the interrelationships (Volpone *et al.*, 2013). Variety was related to all three burnout dimensions; but constraints were positively associated with emotional exhaustion and cynicism; whereas, personality moderated the effects of constraints on professional efficacy as well (Van Mol *et al.*, 2015; Volpone *et al.*, 2013).

Additionally, Volpone *et al.* (2013) established that highly conscientious workers were unlikely to suffer emotional exhaustion due to their intrinsic motivation. However, individuals lacking focus, planning, rational problem-solving and achievement orientation may still require the rejuvenation from hobbies over time. These individuals may, however, be able to cope with job demands for some time.

Emotional stability correlates with exhaustion, while variety of tasks correlates with professional efficacy. Achievement-oriented individuals, also referred to as goal-oriented individuals (Van Mol *et al.*, 2015) are more likely to experience professional inefficacy than low conscientious individuals. These findings suggest that just as with traditional jobs, hobby-jobs with less repetition and fewer obstacles hold less potential for burnout.

Regarding the effect of personality type on burnout among auditors, Utami and Nahartyo (2013) concluded that type “A” personality intensifies/strengthens the positive correlation between role conflict, ambiguity and role overload with burnout tendencies. Positive correlation means the more an employee scores on type “A” personality, the more they are likely to have role conflict because of ambiguity and role overload, and the higher the tendency to suffer from burnout. Type “A” personality individuals tend to be more competitive, impulsive, outgoing, ambitious, impatient and/or aggressive (Utami & Nahartyo, 2013).

This result provides support for the relevance of personality type in professions prone to stress. Although these findings have their own merit, the current study will not evaluate the relationship between burnout and work environment, but rather evaluate the correlation between work calling orientation, work engagement and burnout among nurses in the Khomas Region in Namibia.

Van Mol *et al.* (2015) liken exhaustion with compassion fatigue, which is a state of physical or psychological distress in caregivers. Compassion fatigue is a consequence of the ongoing and cumulative process of the demanding relationship with needy customers, namely, patients, in the case of nurses.

From the foregoing studies, individual personality does play a part in the prevention of burnout in the workplace. Personality is a relatively stable pattern of thoughts, feelings and behaviours and cannot be taught (Garbarino *et al.*, 2014). However, identifying individuals with particular personality types can help in implementing interventions in the workplace to support and prevent the frequency and intensity of burnout among nurses in Namibia. Additionally, equipping nurses with self-management competencies can facilitate their ability to manage self and workplace environment in a manner that is conducive to productivity.

4.4.1.2 Experience

For the purposes of this study, experience refers to the work, life and relationship experiences of employees that place a demand on the employee to perform. In a study to describe the profile and “working lifespan” of voluntary medical male circumcision (VMMC) providers in four countries, namely, Kenya, South Africa, Tanzania and Zimbabwe, Perry *et al.* (2014) established that providers who had performed higher

numbers of circumcisions (more experience) achieved progressively lower rates of adverse events and shorter procedure times than their less experienced colleagues. Perry *et al.* (2014) also found that employees' length of experience and perceived career progression were associated with the decreased likelihood of burnout, while age, physical strain and monotony were associated with the increased likelihood of burnout.

In evaluating exhaustion from the perspective of information system career experience, Armstrong, Brooks and Riemenschneider (2015) suggested that Information Systems (IS) professionals' perception of workload (demand) was linked to higher levels of exhaustion, whereas fairness and perceived control of career (resources) were related to lower levels of exhaustion. The influence of exhaustion on affective commitment to the IS profession was found to be negative. Ultimately, affective commitment fully mediated the effect of exhaustion on the intention to turn away from an IS career. Additionally, Armstrong *et al.* (2015) speculated that the importance of family systems to individuals, and the perceptions of conflict within a single job may induce the individual to change to a different role, thereby reducing the impact of the conflict on one's career. With regards to resources, perceived fairness in pay and promotion in the profession moderated exhaustion through the promotion of opportunities for personal growth and development (Armstrong *et al.*, 2015).

A cross-sectional study on twins by Mather, Blom and Svedberg (2014) established that burnout was associated with a history of emotional abuse or neglect, other upsetting or stressful events, and traumatic life events among twins. The results also showed that serious family problems, such as physical illness, divorce or separation and death, were independently associated with burnout (Mather *et al.*, 2014). Additionally, stress and traumatic life events were associated with burnout, indicating that there is an association between a history of traumatic life events and burnout, independent of familial factors. A cumulative effect was found, with the associations increasing in strength, the more traumatic life events had occurred (Mather *et al.*, 2014).

In analysing clinical empathy among practising physicians, Gleichgerricht and Decety (2013) suggest that practising physicians may experience difficulties in psychological relations (inter-subjective transactions) with their patients, and that empathy declines

during residency training. Empathy is an important attribute of a physician or any caregiver, since it facilitates the process of quality service provision. They, however, indicate that the individual's helping behaviours may buffer the effect of the exposure to stressful live events.

In summary, more work experience may lead to increased skill and performance (Perry *et al.*, 2014), or boredom, both of which, if prolonged, will result in burnout. It is important for nurses to view their work experience as something that builds professional capacity and career development in order to avoid burnout (Perry *et al.*, 2014). Affective commitment to the nursing profession and career control will also buffer the burnout development among nurses. In addition, job resources, such as perceived fairness in reward, promotion and other management practices, might also reduce the occurrence of burnout among nurses in general, and specifically in Namibia.

4.4.1.3 Social support

Social support, both at organisational and family level, can be demanding (Dai, Chen, Arnulf, & Dai, 2014). Increased urbanisation has brought about changes in the composition of families, apart from the traditional African family set-up. More and more young women are absorbed in job markets. The incidents of single parenthood and mixed families are common in our societies. Additionally, health care service workers are required to work in shift operations that further disrupt family time. All these changes bring with them conflict of family roles and workplace roles (Blanco-Donoso *et al.*, 2016).

Dai *et al.* (2014 p. 1614) define work-family conflict as “a form of inter-role conflict in which the role pressures from the work and family domains are mutually incompatible in some respect”. According to Blanco-Donoso *et al.* (2016), the time-demands devoted to performing work responsibilities interfere with the time family members would typically spend together, and conversely, family time and strain impede on work performance. Moreover, Dai *et al.* (2014) propose that work-life conflict affects occupational and health outcomes, including job satisfaction.

As in China, in Africa the institution of the family is a basic, irreplaceable and intimate source of support, and if individuals are frequently struggling to meet the demands at work because of interference from family, they are likely to report a reduction in the

quality of their work life. Dai *et al.* (2014) further report that this spill-over is related to higher levels of job distress, stress and depression. The aforementioned authors concluded that family-work conflict evokes emotional exhaustion, and this, in turn, leads to service disruption behaviours in which the employee moves the burden of stress to the innocent customer by providing poor quality of customer care, for example, by working slower and treating customers in an impolite manner (Dai *et al.*, 2014).

In South Africa, a study by Mostert *et al.* (2011) on construction workers demonstrated that job resources are more strongly associated with negative work-home outcomes, if compared to the job demands as specified in the JD-R model. The results of the study suggested that when employees have insufficient support from supervisors and/or colleagues, or have inadequate autonomy in their work, they are more likely to report burnout and negative family outcomes. The results also advocated that when employees experience high work demands and insufficient resources to deal with these demands it will likely result in the build-up of negative load reactions that will spill over to the home domain (Mostert *et al.*, 2011). Additionally, as this process of negative experiences accumulates and no recovery occurs within an acceptable time limit, the well-being of the employee is affected, leading to feelings of exhaustion and cynicism.

The nursing profession is physically and emotionally demanding, regardless of whether the nurse has family responsibilities or not (Dai *et al.*, 2014). In Namibia, just as in any other African culture, a working individual is expected to support not only his/her immediate family but also extended members of the family. The working conditions may also not also provide the required resources to meet the job demands. Employees also work in shift operations that affect family interaction, especially for nurses with young children needing parental care and guidance (Perry *et al.*, 2014). All these factors can contribute to high levels of stress, which over time lead to burnout.

4.4.2 Job resources and burnout

Job resources refers to a positive work environment, work values and employee character strengths that have a bearing on the employee keeping a balance between job demands and resources (Blanco-Donoso *et al.*, 2016). The availability of job

resources in the workplace positively affects individual performance and reduces the incidents of negative personal health outcomes, including burnout. Job and organisational demands and resources may result in either occupational stress and burnout or flourishing employees (Wissing *et al.*, 2014). Job resources are those organisational factors that facilitate effective job performance, while reducing strain on the individual employees to avoid negative health outcomes. These aspects will be discussed in the sub-sections below.

4.4.2.1 Positive work environment

Positive work environments are created by those organisational factors that provide for employees to feel good and function well (flourish) in the workplace (Wissing *et al.*, 2014). Wissing *et al.* (2014) list several attributes of a positive organisation to include positive employee relations, supervisor approach to managing people, and positive institutional practices.

Positive employee relations are those connections necessary for effective performance, and are characterised by vitality, a sense of positive regard and feelings of mutuality in connection (Wissing *et al.*, 2014). High quality connections improve individual and organisational performance through cognitive, physiological and behavioural processes.

Rothmann and Cooper (2015) explain job resources that are important for effective job performance to include management/ supervisor and subordinate relations, nature of job, co-worker relations and organisational communication. Employees have to feel valued and trusted by the organisation (Wissing *et al.*, 2014) for them to be creative and perform effectively. Furthermore, important aspects of work design are job characteristics, social and relational context of work, and re-crafting (Steffens *et al.*, 2014). Where the above-mentioned work aspects are missing, employees are likely to feel that they are not valued, and will view their jobs and organisation negatively. This in effect leads to stress, which if prolonged, will result in burnout.

4.4.2.2 Work values

Employees hold different work value orientations that are important because of their relationship with other work issues. Liang (2012, p. 254) defines work values as the “evaluative standards associated with work or the work environment by which

individuals determine what is right or wrong and assess the importance of preferences that influence the work outcomes such as employees' creativity". Saito, Igarashi, Noguchi-Watanabe, Takai and Yamamoto-Mitani (2018) posit that intrinsic and extrinsic work values are important factors in determining employees' behaviour and choices in the workplace. Vansteenkiste, Neyrinck, Niemiec, Soenens, Witte and Broeck (2007, pp. 252-253) define work value orientation as the "general and abstract desires reflecting employees' general preferences towards work".

The key attributes of work values that are necessary for effective performance are purposeful work behaviour or sense of desired end (Barrick *et al.*, 2013) that affects the employee behaviour and the meaningfulness or perceived significance of the individual's work experience (Kahn, 1990; Rothmann & Rothmann Jr., 2010; Saito *et al.*, 2018).

Work values can be intrinsic, reflecting employees' natural desire to actualise, develop and grow at the workplace (self-development), to build meaningful and satisfying relationships with colleagues (affiliation), and to help people in need (community contribution) (Saito *et al.*, 2018). Additionally, work values can be extrinsic, reflecting the traditional pursuit of success by advancing up the organisational hierarchy to achieve prestige, status, and high income (Saito *et al.*, 2018).

Ryan and Deci (2000), in the SDT, suggest that higher well-being results from intrinsic values where employees seek satisfaction of the basic psychological needs for autonomy, competence and relatedness. Satisfaction emanates from financial success, power and status, thereby reflecting extrinsic work values (Dobrow, 2013; Ryan & Deci, 2000). Thus, some employees view their jobs as opportunities to exercise their competencies and skills, pursue personal interests and to make meaningful contributions to society (Dobrow, 2013), while others focus primarily on financial success, having control and influence over others and occupying a prestigious position at work (Saito *et al.*, 2018).

In their study on the influence of extrinsic relative to intrinsic work value orientations and negative job outcomes, Saito *et al.* (2018) found that extrinsic work values may affect quality of life. Extrinsic work value orientations negatively predicted dedication, job vitality and job satisfaction, and positively predicted short-lived satisfaction, work-

family conflict, emotional exhaustion and turn-over intentions (Vansteenkiste *et al.*, 2007).

The SDT maintains that the extrinsic work value orientation is likely to distract employees from their personal wants and desires, as they are more concerned with other people's opinions (Gagne & Deci, 2005; Ryan & Deci, 2000). Extrinsically-oriented employees reported lower life satisfaction, were less happy with their lives and experienced more conflict between their jobs and their family life, while intrinsically-oriented employees felt energised after their day at work and were able to participate fully in their family lives (Saito *et al.*, 2018).

In a study of the relationship between work values, burnout and organisational citizenship behaviours, Liang (2012, p. 254) suggested that an "employee having higher work values may extend his/her upward striving from in-role behaviour to extra-role behaviour". Furthermore, research also shows that both intrinsic and extrinsic work values positively impact organisational citizenship behaviours, satisfaction with the overall job experience, and actual advancements in job level and salary (Saito *et al.*, 2018). However, burnout weakens the strength of the positive relationship.

This also means that employees who experience negative work outcomes (including burnout) are more likely to experience negative life outcomes, whereas employees who experience positive work outcomes are more likely to participate fully in their family life, with positive results.

4.4.2.3 Character strengths

According to Wissing *et al.* (2014, p. 117), character strengths are "fairly stable traits of cognitive, emotional, interpersonal, civic, restraint and transcendence features". These features are "dispositional to desires and feelings involving exercise of judgement and leads to recognisable human excellence or instances of human flourishing" (Wissing *et al.*, 2014, p. 117). Strength of character is also referred to as "flow" by Kawabata and Mallet (2011), a state in which individuals are intrinsically motivated, and feel an optimal state of mind when acting with focused and intense involvement. Kawabata and Mallet (2011) establish nine dimensions of flow, while only six of those dimensions are included in the description of flourishing (Wissing *et al.*, 2014). Flow focuses on episodic experiences if compared to character strengths that

can be measured over a longer period. Saito *et al.* (2018) also postulate that living in accordance to one's strengths is beneficial for individual well-being.

According to Kawabata and Mallet (2011), flow theory explains the quality of experience as a function of the relationship between the perceived challenges and perceived abilities or skills, while flow situations are defined as the optimal ratio between the perceived challenges and skills balance, resulting in clear goals and clear feedback. This implies that, when individuals attempt to accomplish a task, they adjust their actions based on relevant and clear feedback about their progress towards goal accomplishment. Flow can therefore be experienced several times or for an extended time during one activity (for example, long distance running), subject to individuals satisfying the proximal conditions (Kawabata & Mallet, 2011).

However, character strengths of wisdom and knowledge, courage, humanity, justices, temperance and transcendence positively correlate to academic achievement and successful recovery from physical illness among American youth (Wissing *et al.*, 2014). In a study to empirically examine the internal structure of flow in physical activity from a process-related perspective, Kawabata and Mallet (2011) indicated that when individuals take action to accomplish a task, they perceive that they are competent enough to deal with the task demands if goals or outcomes are clear and they receive relevant and clear feedback. Effective performance increases employees' self-efficacy.

4.4.3 Personal evaluation and burnout

Lian, Sun, Ji, Li and Peng (2014, p. 1) explain core self-evaluations as "higher order characteristics of personality referring to the basic evaluation of individuals of their ability and value". In an evaluation of core self-evaluation among university students in relation to life satisfaction and academic burnout, Lian *et al.* (2014) revealed that core self-evaluation is an integrated personality variable that affects academic burnout, and is a resource for dealing with challenges and can also mediate life satisfaction. Individuals with a positive self-view are more likely to take interest, and find pleasure and satisfaction in their daily lives than those who hold negative views. Higher life satisfaction decreases the incident of burnout. The results also showed a correlation of positive core self-evaluation (optimism), psychological resilience and academic burnout (Lian *et al.*, 2014).

Manzano-García and Ayala-Calvo (2013) posit that burnout can be understood as the result of unfulfilled expectations that generate demotivation, leading the subject to mechanical behaviour at work. Imbalance in the perception of what one gives and what one receives in terms of reward can lead to disillusionment and burnout. Different levels of burnout change the individual's belief that he/she has what it takes to perform (self-efficacy), commitment levels, their perception of fairness, and control over interpersonal relationships. Subsequently, Manzano-García and Ayala-Calvo (2013) maintain that individuals can suffer from the phenomenon known as 'the straw that broke the camel's back' in their personal and organisational structures. They opined that burnout is a crisis in the relationship between the subject and their work, rather than labour relations.

In creating a model for the effects of core self-evaluation on a nurse's job burnout, Zhou, Lu, Liu, Zhang and Chen (2014) indicate that core self-evaluation has a relatively positive effect on emotional exhaustion, lack of self-awareness (de-individuation) and lowered sense of personal achievement. The higher the nurses' commitment to the organisation (organisational commitment), the higher their level of core self-evaluation, and the lower the level of burnout (Zhou *et al.*, 2014). Thus, both organisational commitment and core self-evaluation can influence job burnout and organisational commitment plays a mediating role between them.

Furthermore, the above-mentioned authors maintain that emotional commitment has a negative effect on emotional exhaustion, and lead to de-individualisation, and a lowered sense of personal achievement, while continual commitment has a positive predictive effect on lowered sense of personal achievement (Zhou *et al.*, 2014).

Employees that are committed are more likely to identify themselves with the organisation and to increase their input and contribution. For nurse management, instituting efforts to improve nurses' core self-evaluation, may reduce job burnout, and may improve self-esteem, locus of control, emotional stability and self-efficacy among subordinates.

4.4.4 Job demands and burnout

Organisations seek to create conducive work environments in which employees from diverse background can be highly productive. A conducive work environment, according to Webb (2013), is one where pride and personal involvement are encouraged (positive emotions), and where highly engaged managers show concern for employees' needs and feelings. A conducive work environment is found when employees strive to solve work-related problems, they are empowered to make job level decisions, perceptions of involvement are nurtured, and personal values leading to discretionary efforts important for high performance are encouraged (Campbell, Pagano, O'Shea, Connery, & Caron, 2013). Additionally, conducive work environments encourage supervisors to provide positive feedback, employees to communicate concerns, and provide opportunities to develop new skills (Sun, Zhang, Qi, & Chen, 2012).

Upadyaya *et al.* (2016) expounded the practical job demands in nursing to include psychological difficulties, challenging work teams, physical exertion leading to muscle and skeletal problems, time pressures, frequent interruptions, numerous responsibilities, increased workload, and mandatory overtime. Chou *et al.*'s (2012) study of emotional labour among nurses in Taiwan described nurse job demands as including interactions with difficult patients, emotional labour, role conflict, role ambiguity, stressful events, heavy workloads, and work pressures. However, these demands differ from unit to unit, the types of hospital, and nurse management styles.

According to Zhou *et al.* (2014), increased job demands can have negative or positive results, depending on the availability of corresponding resources to deal with the demands. Additionally, Van Bogaert *et al.*'s (2014) study on the impact of job roles on nurse managers' stress highlighted that the team practice environments, competing values framework, job complexity, role ambiguity, mental and physical workload, inadequate leadership, decision-making and lack of control, were components of job demands.

Although job demands may be generally stated, they may be experienced differently by every individual employee (Zhou *et al.*, 2014). Individual nurses also experience and perceive workplaces differently, which may lead to different adaptations. For

example, what an individual perceives to be physical exertion may differ from one individual (nurse) to another. The key is to inform individuals of the benefits of vigorous exercises, as illustrated by various authors (Armon & Shirom, 2011; Serrano-Sánchez, Bello-Luján, Auyanet-Batista, Fernández-Rodríguez, & González-Henríquez, 2014).

Lack of team collaboration can be a result of team members' inability or ignorance of the importance of teams for positive work outcomes. Although clear job descriptions may exist in the different hospitals, the complexity of the work environment may require discretionary actions, challenging decisions, and creativity from time to time (Zhou *et al.*, 2014). Kodama and Fukahori (2017) postulate that leadership skills among nurse managers, as well as the hospital administration, is key to ensuring clear job descriptions and to create an enabling work environment that minimises conflict and focuses on quality care. Furthermore, leadership and management skills training could reduce conflict in the workplace.

Ogunbamila (2013) contends that workload is also a challenge that health care managers have to deal with and improve, amid the challenges posed by a lack of qualified and experienced nurses, especially in Africa. Moreover, the job demands for nurses in Africa are more severe, mainly due to work-related factors, such as low job control, lack of social support, lack of autonomy, high time pressures, and work overload due to the shortage of health workers as a result of the migration of health workers (Ogunbamila, 2013; Perry *et al.*, 2014).

Although the public sector in Namibia has very clear policies and procedures, the work environment within these hospitals may be challenging because of a lack of appropriate job resources in the face of increasing job demands (Perry *et al.*, 2014). Sometimes materials and instruments may be just enough to achieve job goals, but work/home imbalance may hinder goal achievement, even though this falls outside the scope of organisational control (Steffens *et al.*, 2014). However, learning programmes focusing on self-management skills may equip individuals with the required competencies for personal effectiveness in the workplace.

A study of larger organisations with large numbers of employees by Bakker *et al.* (2010) confirmed that employees support positive work attitudes or task enjoyment and organisational commitment, when both job demand and job resources are high.

In addition to high emotional intelligence, a positive disposition and feedback increase personal and social coping resources, which may enhance health and wellbeing (Görgens-Ekermans & Brand, 2012). Moreover, when individual nurses viewed their work positively it reduced the incidences of burnout, led to improved coping skills, and enhanced the nurses' social skills in their work (Görgens-Ekermans, Delpont, & Du Preez, 2015).

Nurses may be continuously confronted with emotionally laden interactions with patients and their families, and their own emotional reaction to the suffering and death of patients (Steffens *et al.*, 2014). Although burnout may develop as a result of emotional labour, emotional intelligence may be a helpful resource in coping with emotional situations and support individuals in performing emotional labour and meeting organisational expectations and specific job roles (Görgens-Ekermans, Delpont & Du Preez, 2015).

4.5 DEMOGRAPHICS CHARACTERISTICS AND BURNOUT

The demographic characteristics in this study focused on the diversity of individual differences, and include gender, age, race/ethnicity (social cultural differences), educational attainment, work history, type of organisation (work environment), position held, and marital status (social support) that affect employees in the process of job performance (Mather *et al.*, 2014).

In their investigation, Gleichgerricht and Decety (2013) found that age, years of experience as a medical practitioner and individual dispositions moderated compassion satisfaction and compassion fatigue among practicing physicians. The aforementioned authors further established that women were more empathetic, which may lead to them experiencing higher emotional exhaustion than men do. However, men and women physicians were similar in terms of reported personal distress and perspective (Gleichgerricht & Decety, 2013). Younger or new workers may be more concerned with positive experiences in the workplace than older employees are (Van Bogaert *et al.*, 2014). For example, younger nurses or doctors may value their private lives more than veteran practitioners who may have developed individual strategies to deal with the demands (Van Bogaert *et al.*, 2014).

Mather *et al.* (2014) posit that burnout tends to cluster in families, and one fifth of their respondents in their twin study had symptoms of burnout, which was more than twice as common among the women compared to the men. Independent sample t-tests indicated that men and women did not differ from each other on any of the work value orientations or outcome variables, except for turn-over intention, in which men were more inclined to leave the job than women (Vansteenkiste *et al.*, 2007).

Additionally, Mather *et al.* (2014) found that age was negatively correlated with basic need satisfaction, but unrelated to any other outcomes. Level of education was positively correlated to need satisfaction, work-family conflict and emotional exhaustion, respectively; work experience was unrelated to any other outcomes (Mather *et al.*, 2014).

In a study on burnout, work engagement and sense of coherence among female academics in South Africa, Bezuidenhout and Cilliers (2010) postulate that a sense of coherence allows individuals to make sense of complex environments. Further, female academics experienced higher levels of physical, emotional and mental exhaustion that are related to feelings of tiredness, being drained and used up. Furthermore, high levels of cynicism implied feelings of detachment towards students, colleagues and work. Professional detachment (depersonalisation) that developed as a result of the job demands of dealing with large classes and student needs for personal guidance, and the ever-increasing personal contact and communication needs mediated for burnout (Bezuidenhout & Cilliers, 2010).

Although the general workforce in South Africa is relatively young, the trend for academics is the opposite, with most of them being over the age of fifty (50) years (Bezuidenhout & Cilliers, 2011). Generally, female academics experience career stages later than their male counterparts do. Older female academics represent a valuable pool of employees with higher levels of job satisfaction because of increased coping capacity, greater stability and ego strength development with age (Bezuidenhout & Cilliers, 2011). The authors further established that there is a significant positive relationship between the employees' years of employment as academics and their sense of coherence. This means that the longer a female academic has been in an academic capacity, the higher the expectation that s/he will understand the demands of the job on a cognitive rather than an emotional level.

Bezuidenhout and Cilliers' (2011) study on age, burnout, work engagement and sense of coherence in female academics posits that flexibility and autonomy are important for older academics who want to focus on postgraduate supervision and research. This has an implication for practitioners.

Although older female nurses may have the competency to cope with the job demands amid low job resources, the nature of nursing may be physically exhausting for older nurses, unless they are in managerial positions.

4.6 SOME BURNOUT COPING STRATEGIES

Although coping strategies for burnout fall outside the scope of this study, the researcher takes cognisance of the fact that burnout is a negative work outcome, while the other two constructs (work calling orientation and work engagement) are positive.

In this study, work calling orientation is portrayed as the state of employee being that fosters work engagement and flourishing that reduces negative work outcomes, such as burnout, in the workplace (Wissing *et al.*, 2014). Burnout risk factors that have been identified include work environment, job stress, lack of motivation, lack of alignment with values, lack of job resources, change and technology, lack of self-care and attitudes (Asuero *et al.*, 2014; Demerouti, 2015; Lamichhane, 2015).

Therefore, some suggestions are put forward that could help reduce the incidence of burnout in the workplace:

- Social change at individual, family and organisational level. These strategies include problem-coping strategies, where individuals can manage and change behaviour to reduce the impact of work stressors by changing the stressor or their responses to the stressor (Asuero *et al.*, 2014).
- Employees can be supported in job crafting to alter the characteristics of the job so that it becomes less obstructing and more encouraging (Demerouti, 2015).
- Individuals can also be encouraged to create boundaries between work life and non-work domains to reduce work–family and family–work conflicts.
- Nurses can also be trained to cultivate resilience and renewal practices in dealing with work challenges and making meaning of every work experience (Rushton, Batcheller, Schroeder & Donohue, 2015).

- Organisations can provide employee support and guidance programmes to ensure wellness in the workplace. For example, by the provision of workshops to train and maintain a positive social climate, such as creating support teams (Rushton *et al.*, 2015).
- Organisations are also encouraged to develop policies, systems and practices that ensure justice and fairness (Lamichhane, 2015).

The provision of job resources and fair workload can prevent the vulnerability to the development of burnout among nurses and promote quality health care for patients (Rushton *et al.*, 2015). Mudallal, Othman and Al Hassan (2017) recommend employee empowerment as important strategies for the prevention of burnout, while Perrone-McGovern *et al.* (2014) endorse that the selection and placement of individuals with calling orientation to the nursing profession can ensure that individuals have positive attitudes towards their job.

This concludes Research aims 1 and 2 and Research questions 1 and 2 as follows:

Research aim 1: To theoretically conceptualise the constructs of work calling orientation, work engagement and burnout, and their respective sub-dimensions.

Research aim 2: To identify the nature of the theoretical relationship between work calling orientation, work engagement and burnout, and their respective sub-dimensions.

Research question 1: How does the existing literature conceptualise the constructs of work calling orientation, work engagement and burnout, and their respective sub-dimensions?

Research question 2: How does the existing literature describe the relationship between work calling orientation, work engagement and burnout?

The next section deals with integration of the three constructs and their sub-dimensions.

4.7 INTEGRATION OF THE CONSTRUCTS

This section deals with the integration of the constructs under study, namely, work calling orientation, work engagement and burnout. The discussions are systematic as follows: integration of work calling orientation and work engagement, integration of

work calling orientation and burnout, integration of work engagement and burnout, and finally, integration of the three constructs work calling orientation, work engagement and burnout. The section culminates in a conceptual model framework of the study.

4.7.1 Integration of work calling orientation and work engagement

Work calling orientation is described as an “occupation that individuals feel drawn to pursue, which they expect to be intrinsically enjoyable and meaningful, perceiving it to be a central part of their identity” (Wrzesniewski *et al.* 1997, pp. 22-25). It is also referred to as a “discerned, conscious calling”, with characteristics that include consciously viewing work as a calling, and to which the individual chooses to respond (Dobrow, 2004).

Discerned consciousness implies individuals can develop calling through their abilities, behaviour involvement and social comfort (Dobrow, 2013). In a changing workplace and society, this has become a resource that individuals can draw on as they become creative and innovative in solving problems and coming up with new work roles and domains.

Ponton *et al.* (2014) posit that calling and vocation apply to work roles that involve an individual evaluation of the purpose and meaningfulness of job activities that contribute to the mutual benefit of society. They view calling and vocation as embodying the process of career choice, connecting work activities to an individual’s overall sense of purpose, passion and meaningfulness regarding pro-social results (Xie *et al.*, 2016). Work calling orientation is therefore an inherent, persistent and continuous feeling towards specific work domain (Wrzesniewski *et al.* 1997).

Conversely, individuals can have a calling towards a specific domain, and yet not live a calling due to several factors (Dobrow & Tosti-Kharas, 2011; Duffy *et al.*, 2015). Work calling orientation is closely related to passion that energises performance (Wrzesniewski *et al.*, 1997), meaningfulness and identity (Hirschi, 2012), and purpose and enjoyment (Bakker & Van Woerkom, 2017). Some of these terms are also used in defining work engagement.

Work engagement, as put forward by Schaufeli and Bakker (2010), includes the three sub-dimensions of vigour, dedication and absorption. Vigour indicates a “positive mood state that influences experiences at work, giving individuals’ feelings that they

possess physical strength, emotional energy, and cognitive liveliness” (Armon & Shirom, 2011, pp. 618-619; Shirom *et al.*, 2012, p. 130).

Dedication is defined by Klein *et al.* (2012, p. 131) as a “construct that better explains workplace commitment, which is the opposite of depersonalisation or cynicism found in burnout”, as expounded by several other authors, including Van der Colff and Rothmann (2014), and Maslach *et al.* (2001).

Absorption is characterised by being fully concentrated and happily engrossed in one’s work; a situation where time passes quickly and one has difficulties with detaching oneself from work (Schaufeli *et al.*, 2002).

Work engagement is similarly described as being energised in the performance of a job (Armon & Shirom, 2011), having commitment which prevents cynicism/ depersonalisation (Van der Colff & Rothmann, 2014), and being fully concentrated and happily committed (Schaufeli & Taris, 2014).

Positive psychologists emphasise engagement through the theories of motivation scholars (Macey & Schneider, 2008; Meyer & Gagne, 2008). Specifically, Meyer and Gagne (2008) propose a theoretical model using the SDT, which addresses the mechanisms underlying employee motivation and autonomy to perform. Shuck *et al.* (2015) examined engagement in work activities to make connections between state engagement and the antecedents and consequences of engagement. They empirically examined the utility of SDT within the engagement–performance linkage.

The SDT is concerned with influence, independent choice and the degree to which work behaviour is self-regulated, self-determined and self-motivated (Deci & Ryan, 2000). Successively, behaviour comes from the internal organismic needs (intrinsic motivation) of growth and integration within context, rather than seeking for pleasure and pain. Factors of work behaviour determine the need for competence, autonomy and relatedness in the promotion of individual wellness among different employees (Shuck *et al.*, 2015). Earlier, Meyer and Gagne (2008) argued that the extrinsic motivation in SDT comes from a high level of volition or the desire to gain rewards or to avoid punishment, to boost one’s ego or to avoid feelings of guilt (introjection), to attain a valued personal goal (identification), or express one’s sense of self (integration).

Using three scales to correlate psychological needs, work engagement and intention, Shuck *et al.* (2015) found a positive association between the engagement sub-dimensions and basic psychological needs. They emphasised the power of psychological needs in driving engagement, and thus positioning employees as agents of their own future, dependent on how they perceive their work environment. Autonomy, relatedness and competence are highlighted as significant indicators of how employees encounter and involve themselves with the work environment (Van Dam *et al.*, 2013). Thus, the more strongly employees emotionally connect with their work, the better they perform.

For the purposes of this study, an analysis was done to identify the interaction between work calling orientation, work engagement and their sub-dimensions. Nurses who score high on calling orientation are assumed to be intrinsically motivated, and possess a higher need for competence, autonomy and in relatedness. These individuals are expected to score high in work engagement, especially in vigour and dedication.

Hirschi's (2012) investigation on the relationship between work calling work engagement with mediation by work meaningfulness, occupational identity and employee occupational self-efficacy, reports that mediation depends on the degree of perceived person-job fit. Person-job fit may be closely related to the individuals feeling that they are doing what they are best suited for or called to do. With a sample of young professionals, this study concluded that enjoying a calling provides a sense of meaningfulness and identity at work (Hirschi, 2012).

The sense of meaningfulness and identity at work allows employees to experience engagement with the three sub-dimensions (vigour, dedication and absorption at work). As suggested by the findings, these factors (meaningfulness and identity) allow people to experience work engagement (vigour, dedication, and absorption at work), while facilitating identification with the work domain (Dik & Duffy, 2009; Dobrow & Tosti-Kharas, 2011; Hall & Chandler, 2005).

Dobrow (2004, pp. 3-4) also describes "vocational calling as a sense of passion or deep enjoyment and satisfaction with a specific work domain that gives individuals a strong sense of identity", while Gales and Lenz (2013, p. 241) add the idea of "with urgent need to act with a sense of destiny" (as if one's life purpose is dependent on

the work). Passion and identity are therefore constructs of work calling orientation or experiencing passion and enjoyment (Dobrow, 2013).

If nurses have a calling in their jobs they will also find work meaningful, identify themselves with their work and have a high degree of self-efficacy. It is expected that they will be passionate and enjoy their jobs, and that will lead to high professional accomplishments. They are more likely to have an increased sense of identity that has a positive effect on individual self-efficacy and subsequently, can lead to effective performance and a lower tendency to suffer from burnout, with feelings of exhaustion, depersonalisation and low self-accomplishment (Shuck *et al.*, 2015).

In an investigation of organisational commitment, engagement and meaning of work among nurses in South Africa, Beukes and Botha (2013) established that work meaningfulness positively correlated with work engagement, calling orientation and organisational commitment. Thus, the more likely the nurses were to be engaged, the more they were committed to their work as a profession and felt they were born to perform in it. Further, nurses who viewed their work as a calling or career were also more likely to anticipate progressing to higher employment levels within the organisation than those who viewed their work as a job.

In an integrated review of the factors influencing new graduate nurses' engagement, Pfaff, Baxter, Jack and Ploeg (2014) propose that self-confidence, knowledge, experience, communication skills, support and respect (job demand-resources) are both barriers and facilitators of engagement and inter-professional collaboration. Additionally, critical thinking was identified as a factor of engagement among new graduate nurses. Personal values was also identified as a construct that is necessary for individuals rating high on work calling orientation (Dik & Duffy, 2009; Perrone-McGovern *et al.*, 2014; Riem, 2003).

It is important to ensure that nurses align their personal values to the employer's values of providing the best possible care to patients in their care. This would enhance nurse engagement, which is essential for better clinical and medical outcomes of patient care (Atinga, 2013). Furthermore, based on the perspective of the Career Construction Theory, Xie *et al.* (2016) established that having a calling facilitates employees' work engagement through having a deep sense of meaning and purpose in work.

Employees who have and live a calling in a specific domain tend to have a sense of significance and identity, attach meaning and value to their work, and are passionate about their work (Perrone-McGovern *et al.*, 2014). These individuals will in effect be committed to their jobs, have a positive attitude with emotional energy, and ultimately be happily engrossed in their work (Schaufeli & Taris, 2014). These feelings are related to work engagement, indicating that employees who have a calling orientation are more likely to score high on work engagement.

Before considering the underlying relationships between these constructs, group differences were explored. This relates to hypothesis 1, namely:

H1₀=There are no significant differences in levels of work calling orientation, work engagement and burnout between groups of nurses in the Khomas Region of Namibia, as defined by selected demographic characteristics.

H1₁=There are significant differences in levels of work calling orientation, work engagement and burnout between groups of nurses in the Khomas Region of Namibia, as defined by selected demographic characteristics.

Subsequently, the analyses in this study aimed to categorise the effect of the interaction between work calling orientation (X), work engagement (Y) and their respective sub-dimensions with the demographic (W) characteristics.

This section relates to hypothesis 2 as follows:

H2₀=There is no significant linear correlation between levels of work calling orientation and work engagement among nurses in the Khomas Region of Namibia.

H2₁=There is a positive significant linear correlation between levels of work calling orientation and work engagement among nurses in the Khomas Region of Namibia.

4.7.2 Integration of work calling orientation and burnout

The literature review conducted for this study indicated that burnout syndrome has been identified as a condition of fatigue or frustration that occurs when people are devoted to a cause or systems of practice in life or interrelationships that do not produce immediate results (Freudenberger, 1977; Prapanjaroensin *et al.*, 2017). This is a problem arising from prolonged stress that frequently occurs in health professionals, and it is exacerbated by diverse organisational factors that prevent the

development of a harmonious labour environment and which does not allow for suitable communication among the various hierarchical levels (Schaufeli & Maslach, 1993).

Moreover, burnout has the three key sub-dimensions of exhaustion, cynicism/ depersonalisation from the job, and a sense of ineffectiveness and lack of accomplishment (Bakker *et al.*, 2010; Xu & Cooper-Thomas, 2011; Maslach & Jackson, 1986; Maslach *et al.*, 2001; Schaufeli *et al.*, 2009). Exhaustion represents “feelings of being emotionally overextended and depleted”, and is considered the central quality of burnout (Armstrong *et al.*, 2015).

As discussed previously, calling orientation, as a sub-dimension of work calling orientation, comprises of different characteristics, which include significance, satisfaction and self-regulation (Dik & Duffy, 2009).

- Significance refers to the “positive feeling individuals have when they perform tasks they believe have an impact on others and where individual needs are met” (Barrick *et al.*, 2013, p. 137). This is contrary to exhaustion, which is a sub-dimension of burnout.
- Self-regulation is the process of overruling or disregarding spur of the moment impulses in order to respond to life situations in a healthy manner (Lisjak & Lee, 2014).
- Dik and Duffy (2009) define satisfaction as the sum of the positive emotional reactions and attitudes resulting from the career commitment and life meaning individuals have towards their work. Thus, life satisfaction is related to individual well-being, and job satisfaction is related to job performance and career goal achievement, which are both essential for nurses (Steger *et al.*, 2012).

Maslach *et al.* (2001) expound cynicism/ depersonalisation as the self-regulation process, which includes not engaging in positive behaviour as required in the case of calling orientation. Self-regulation is a sub-dimension of work calling orientation where “individuals override or alter spontaneous and impulsive responses associated with the attainment of beneficial, wholesome and virtuous goals such as being healthy, performing well academically and maintaining loving relationships” (Booker & Mullan, 2013, pp. 746-747 Lisjak & Lee, 2014, p. 56). Therefore, nurses who are cynical and depersonalised may not be dedicated to their profession, organisation, patients or

teams they are working in. When employees exhibit cynicism and depersonalisation over an extended period of time, it may be an indication of a lack of calling orientation.

Demerouti *et al.* (2000), in the model of burnout and life satisfaction amongst nurses, confirmed the strong effects of job demands and job resources on exhaustion and disengagement, respectively, and the mediating role of burnout between the working conditions and life satisfaction. Thus, job demands, such as demanding contact with patients and time pressures, are most predictive of exhaustion; while job resources, such as (poor) rewards and (lack of) participation in decision-making, are most predictive of lack of commitment to work (Bakker *et al.*, 2014). Additionally, job demands and job resources have an indirect impact on nurses' life satisfaction, through the experience of burnout (exhaustion and disengagement) (Demerouti *et al.*, 2000).

Volpone *et al.* (2013) argued that stress (negative health outcome) can be related to hobbies and increased exhaustion, where hobbies are similar to jobs. This could eventually lead to cynicism and professional inefficacy if individuals continued with those hobbies.

Van der Doef, Mbazzi and Verhoeven (2012), in a study of East African nurses, demonstrated higher levels of burnout in comparison to Western or European nurses. Burnout was mainly associated with high workload, inadequate information, and demanding physical working conditions. This further reinforces the effect of job demands and resources on employee health and performance.

It is, therefore, expected that nurses who score high on burnout may also score low on calling orientation. The current study aimed to do an analysis to evaluate the interrelationship between work calling orientation (X), burnout (Y) and their respective sub-dimensions, and the effect of the demographic characteristics.

This section relates to research hypothesis 3 as follows:

H3₀=There is no significant linear relationship between levels of work calling orientation and burnout among nurses in the Khomas Region of Namibia.

H3₁=There is a significant negative linear relationship between levels of work calling orientation and burnout among nurses in the Khomas Region of Namibia.

The next section deals with integration of the three constructs.

4.7.3 Integration of work engagement and burnout

Work engagement is viewed as an independent construct in which employees can involve and express themselves physically, cognitively and emotionally at different levels in the process of performing their duties (Kuok & Taormina, 2017). Furthermore, the aforementioned authors postulate that work engagement can be viewed as the positive affective-motivational state of fulfilment, which is on the opposite continuum with burnout in which employees have a negative emotional state/experience at work (Kuok & Taormina, 2017).

In their study on burnout and work engagement, Demerouti, Mostert and Bakker (2010) established that the burnout sub-dimensions of exhaustion and cynicism/ depersonalisation were the direct opposite of the work engagement sub-dimensions of vigour and dedication. The work engagement dimension of dedication was regarded as the opposite of cynicism/ depersonalisation, while the energy dimensions of exhaustion and vigour were separate but highly related constructs (Demerouti, Mostert & Bakker, 2010).

The professional efficacy dimension of burnout is viewed as a positive sub-dimension which occurs when there is low burnout and high work engagement (Kuok & Taormina, 2017). In their formative research, Maslach and Jackson (1981) envisaged burnout as a psychological construct with three sub-dimensions, namely, exhaustion, cynicism and inefficacy (negatively stated). Work engagement can be viewed as an independent construct; but employees could involve and express themselves in three different ways, namely, physically, cognitively, and emotionally, at different levels while performing their roles (Bakker & Van Woerkom, 2017).

Conversely, Bezuidenhout and Cilliers (2010) posit that burnout and work engagement are negatively correlated, but are not the exact opposites of each other. However, the negative attitudes of cynicism may be more related to the depletion of the job environment than exhaustion (depletion of both emotional and physical resources in an employee), and therefore, the two sub-dimensions are related (Leiter & Maslach, 2016). The third sub-dimension of inefficacy is the tendency to evaluate oneself negatively, with regard to one's work where employees' feel unhappy about themselves and dissatisfied with their accomplishments on the job (Leiter & Maslach, 2005; Leiter & Maslach, 2016).

Dedication, a sub-dimension of the work engagement construct, is the opposite of cynicism/ depersonalisation, which according to Klein *et al.* (2012, p. 131) is a “psychological bond reflecting commitment and responsibility for a target, vow or pledge that binds one to the target, felt responsibility and a sense of volition”. Employees cannot therefore, be cynical or depersonalised and continue to be dedicated in the workplace. When employees have negative attitudes, evaluate themselves negatively in relation to their jobs and are unhappy, they may not be fully engaged with their work (Leiter & Maslach, 2016).

In this study, it is therefore expected that employees who score high on work engagement, will score lower on the burnout sub-dimensions of exhaustion and cynicism/ depersonalisation.

In a study on Spanish nurses and their job resources, Blanco-Donoso *et al.* (2016) found that psychological meaningfulness fully mediates the impact of social job resources on vigour at work. In addition, psychological meaningfulness partially mediated the impact of social job resources on emotional exhaustion. The results also suggested that meaningfulness plays an important role in the connection between job resources, vigour, and emotional exhaustion.

According to the COR theory, individuals seek to acquire and maintain resources, including objects (homes, clothes, food), personal characteristics (self-esteem), conditions (being married or living with someone provides social support, more financial security), and energies (such as time, money, and knowledge) (Hobfoll, 2011; Leiter & Maslach, 2016). Stress occurs when there is a loss of resources, or a threat of loss. For example, work-family conflict leads to stress because resources (for example, time, energy) "are lost in the process of juggling both work and family roles", which in turn leads to job dissatisfaction, anxiety, and thoughts about quitting one's job (Avanzia, Zanibonia, Balduccib, & Fraccaroli, 2014, p. 460). Using the COR theory, Avanzia *et al.* (2014) found evidence that employees reporting burnout tend to develop a maladaptive coping style, for example, over-commitment, which in turn increases burnout, and employee dissatisfaction over time. Increases in over-commitment, in turn, lead to more burnout, especially among dissatisfied employees.

According to the JD–R model, when job demands are corresponding to increased job resources this can lead to increased work engagement and can reduce the incidence

of work burnout among employees (Demerouti *et al.*, 2001; Bakker *et al.*, 2014). Schaufeli and Bakker (2004) confirmed that burnout and engagement are negatively related. Burnout, they argued, is mainly predicted by job demands but also by lack of job resources, whereas engagement is exclusively predicted by the available job resources.

The JD-R model explains the relationship of the interactions of work engagement-related job resources and burnout related to job demands (Bakker & Demerouti, 2014; Schaufeli & Taris, 2014). Across nationalities, Douglass, Duffy and Autin (2016) postulate that nationality moderated the relationship between living a calling-life meaning and living a calling–job satisfaction. In a study comparing global cultures, Park, Sohn and Ha (2016) confirmed that living a calling was as important in the Eastern as in Western cultures, in that living a calling was a significant moderator of the relationship between calling and work-related outcomes.

The relevant literature describes work calling orientation as a steady, continuous and persistent construct in which an individual identifies with the work domain, derives a sense of purpose and meaning from work, experiences a transcendent guiding force and social value-driven behaviour (Dobrow, 2013; Horvath, 2015; Wrzesniewski *et al.*, 1997).

In Horvath's (2015) study on the prediction of work outcomes, the results indicated that perceived transcendental calling mediates job involvement and workplace cognition and behaviour. As indicated in literature, Duffy, Allan and Bott (2012) postulate that academic satisfaction and life meaning mediated calling and life satisfaction. Duffy *et al.* (2013) postulate that job satisfaction and life meaning mediate the relationship between living a calling to life satisfaction, and the link between living a calling and job satisfaction was mediated by work meaning and career commitment. Additionally, career goal self-efficacy (CGSE) mediated the relationship between calling and life satisfaction (Allan & Duffy, 2014), while career adaptability and life meaning mediated calling and work engagement (Xie *et al.*, 2016).

Work engagement is portrayed both as an independent and separate construct (Schaufeli & Taris, 2014), and as a construct on the engagement–burnout continuum (Schaufeli & Salanova, 2014). The JD-R model assumes that work engagement is the mediator between personal resources and performance, and between job

demands/resources and performance (Wingerden *et al.*, 2016). Bakker and Demerouti (2014) postulate that personal resources mediate the relationship between job resources and work engagement.

As indicated in the literature, burnout as a construct is a negative, persistent psychological syndrome characterised by exhaustion, dysfunctional work attitudes and behaviours, and a sense of reduced effectiveness (Brand-Labuschagne *et al.*, 2013; Maslach *et al.*, 2001; Schaufeli & Taris, 2014). Earlier studies by Leiter and Maslach (2009) indicated that burnout mediates between nurse work life, work engagement and turnover. In the JD-R model, Van Bogaert *et al.* (2017) posit that burnout mediates between job demands and mental health. Boamah and Laschinger (2016) posit that burnout mediates work life fit and work life interference, while Maslach and Leiter (2016) postulate that burnout mediates the relationship between work environment and mental illness (depression). In a study of school burnout result showed that burnout mediated between study demands and mental health outcomes (Salmela-Aro & Upadyaya, 2014).

In addition, while burnout is related to health problems and turnover intention, engagement is related only to job demands. Furthermore, burnout mediates the relationship between job demands and health problems, while engagement mediates the relationship between job resources and turnover intention (Bakker *et al.*, 2014). The fact that burnout and engagement exhibit different patterns of possible causes and consequences means that different intervention strategies should be used to reduce burnout or to enhance engagement (Schaufeli & Bakker, 2004).

In another study, Bakker (2018) postulates that engaged employees are not passive actors in their work environments, but instead, actively craft their jobs, if necessary, to increase their job-fit to their personal knowledge, skills and abilities, and also to their preferences and needs. Bakker *et al.* (2014) add that job crafting helps individuals to experience enhanced meaning in their work. Work engagement, in turn, has a positive impact on job performance, and mediates the level of burnout among employees.

Among health professionals, Bakker (2018) views job crafting as a proactive strategy of job design aimed at reducing deterring job demands when work engagement is low. When work engagement is high, job crafting facilitates personal organisational fit (P-O fit) among employees. Additionally, and in line with the SDT, Bakker and Van

Woerkom (2017) argue that employees can use self-leadership, job crafting, personal strength and designing work to be playful in order to satisfy their basic needs and to facilitate flow experiences in their work.

According to Swensen, Kabacene and Shanafelt (2016), to flourish, physicians need some degree of choice or control over their lives, camaraderie or social connectedness, and an opportunity for excellence and being part of something meaningful. To reduce burnout and work engagement, organisations can provide opportunities for inter-professional interaction by establishing constructive organisation-physician relationships and developing physician leaders (Leiter & Maslach, 2016).

Furthermore, research on the relationship between burnout, work engagement and service quality established that both burnout and work engagement were predicted by job demands and job resources, after controlling for demographic variables and level of participation in the project (Bakker *et al.*, 2014). This may be an indication that work engagement and burnout are opposites, and that calling orientation moderates for work engagement levels and a reduction of the incidences of burnout among employees. Additionally, organisations can implement policies, practices and programmes to increase work engagement and reduce burnout.

This section relates to hypothesis 4 as follows:

H4₀=There is no significant linear relationship between levels of burnout and work engagement among nurses in the Khomas Region of Namibia.

H4₁=There is a significant negative linear relationship between levels of burnout and work engagement among nurses in the Khomas Region of Namibia.

4.7.4 Integration of work calling orientation, work engagement and burnout

Wrzesniewski *et al.* (1997, pp. 22-25) defined calling as an “occupation that individuals feel drawn to pursue, which they expect to be intrinsically enjoyable and meaningful, perceiving it to be a central part of their identity”. Having a calling is referred to as a “discerned or conscious calling” (Dobrow, 2004, p. 1), with characteristics that include consciously viewing work as a calling, to which individuals choose to respond. Living a calling includes having a sense of destiny, passion and enjoyment in one’s work over a period of time (Dobrow, 2013). Having a sense of significance is also a component

of work calling orientation, which (Hibberd, 2013, p. 672) defines as an “aspect of meaning that assigns value to a goal, relationship, or life experience that exists in the present and future”.

A study by Duffy *et al.* (2015) established that living a calling correlates more highly with well-being and positive work-related outcomes than perceiving a calling. The aforementioned authors also revealed that living a calling moderates the relationship between perceiving a calling and job satisfaction. It can therefore be assumed that employees who have and live a calling in a specific work domain tend to have a sense of significance, a positive attitude with energy, and will be committed to their work.

Work engagement has been defined as a positive psychological construct represented by vigour, dedication and absorption (Rosethorn, 2009; Schaufeli *et al.*, 2002; Tomlinson, 2010; Xu & Cooper-Thomas, 2011) that mediates the impact of job resources and personal resources on organisational outcomes (Schaufeli and Bakker, 2010). According to Kahn (1990), work engagement is where employees' have sufficiently meaningful work, and personal resources available to do that work, and feel psychologically safe in investing themselves in that work. Psychological meaningfulness is the “extent to which individuals are willing to invest themselves physically, cognitively and emotionally in job performance” (Kahn, 1990, pp. 703-704). Altunel, Kocak and Bilal (2015) also describe work engagement as the extent to which employees derive pride, enjoyment, inspiration and meaning from the workplace, and that it creates a sense of destiny and connection with people. Having a sense of destiny is similar to feeling called in a particular work domain (Dobrow, 2013; Wrzesniewski *et al.*, 1997).

Burnout is a negative state of weariness in which employees have low involvement and enjoyment in their work (Schaufeli & Taris, 2014; Schaufeli *et al.*, 2008). Brand-Labuschagne *et al.* (2013) affirm that burnout is a persistent, negative, work-related state of mind primarily characterised by exhaustion, distress, a sense of reduced effectiveness, reduced motivation and dysfunctional attitudes and behaviours at work. Burnout is a construct with three sub-dimensions, namely, emotional exhaustion, cynicism/depersonalisation and professional inefficacy (Leiter & Maslach, 2016).

Burnout has been viewed as the antithesis of work engagement, which is a distinctive, positive psychological state comprising of affective, cognitive and behavioural

components. This approach views engagement as the positive, and burnout as the negative, of the same continuum. Exhibiting burnout may result from work overload, poor resources and lack of control, which in turn, leads to poor social functioning, negative work outcomes and poor perceived health (Schaufeli & Taris, 2014). Burnout is, therefore, a psychological syndrome in response to chronic stressors that were not present in the traditional agencies where work was considered a calling (Schaufeli *et al.*, 2009).

In this study, work calling orientation and work engagement are viewed as positive constructs, while burnout is a negative work outcome. Levels of burnout or engagement determine employee performance and attitude towards work and organisation. The result of a longitudinal study by Chernyak-Hai and Tziner (2016) showed that burnout mediated the relationship between work engagement and work family conflict. Based on the resource conservation model group identity led to higher performance that was mediated by increase in work engagement and reduction in burnout (Steffens, Haslam, Kerschreiter, Schuh & van Dick, 2014). Additionally, relationship between perceived organisational support and burnout was mediated by work engagement. Leiter and Maslach (2016) visualised employees' psychological relationships to their jobs as a continuum linking the negative experience of burnout and the positive experience of work engagement in the three over-extended profiles. The continuum has three interrelated sub-dimensions on both ends, namely, exhaustion vs vigour (energy), cynicism vs dedication (involvement), and inefficacy vs absorption. Employees who have calling orientation are expected to experience work engagement and less burnout.

This literature section addressed the interaction between the three constructs and focuses on the research question 4 as follows:

How does literature conceptualize the interaction between the three constructs of work calling orientation, work engagement and burnout and their respective sub-dimensions?

In this study analyses was done to identify any of the moderation and mediation effects of the relationships between work calling orientation, work engagement, burnout and their respective sub-dimensions.

The results of this study can lead to recommendations for organisations, HR practitioners and Nurse Managers to implement programmes to identify individual work calling orientation to increase work engagement and reduce burnout. This section relates to hypothesis 5 as follows:

H5₀=Burnout does not mediate the relationship between levels of work calling orientation and work engagement among nurses in the Khomas Region of Namibia.

H5₁=Burnout mediates the relationship between levels of work calling orientation and work engagement among nurses in the Khomas Region of Namibia.

4.8 MEDIATION AND MODERATION EFFECTS

The term 'demographics' refers to the socioeconomic characteristics of a population that are expressed statistically and are included in this study. As moderators, the demographic variables explain when calling orientation, work engagement and burnout are present.

Sharma *et al.*'s (2017) study of IT employees in India, investigated the demographic variables that moderated between work engagement and job performance. The study revealed significant differences in how work engagement was perceived by employees from different age, educational and experience groups. Similarly, among Chinese retirees, Zhan, Wang and Shi (2015) established that men with high social worth and status hierarchy were more likely to engage in bridge employment than their female counterparts did, while those with communion striving were more likely to continue working after retirement. Gender moderated the status motivation and bridge employment.

The study by Sharma *et al.* (2017) on Indian IT workers revealed that gender, education and tenure moderated the relationship between work engagement and employee performance. In a study on compassion fatigue among health care workers, demographics moderated compassion and burnout (Van Mol, Kompanje, Benoit, Bakker, & Nijkamp, 2015).

The literature in this study indicates work calling orientation as a construct with the three sub-dimensions of calling, job and career orientation, while work engagement is portrayed as a construct represented by vigour, dedication and absorption. The

construct of burnout is represented by exhaustion, cynicism/ depersonalisation and professional efficacy.

This study aims to identify the interrelationship between the constructs and their corresponding sub-dimensions with the demographic characteristics of the respondents having a moderating effect.

The model below (Figure 4.3 on the next page) reflects the interaction between:

- 1) work calling orientation and its sub-dimensions (X) and work engagement and its sub-dimensions (Y), with the demographic characteristics (W) moderating the relationship;
- 2) work calling orientation and its sub-dimensions (X) and burnout and its sub-dimensions (Y), again moderated by the demographic characteristics (W), and
- 3) work engagement and its sub-dimensions (X) and burnout and its sub-dimensions (Y), with the demographic characteristics (W) moderating the relationship.

This interrelationship is portrayed in Figure 4.3 on the next page.

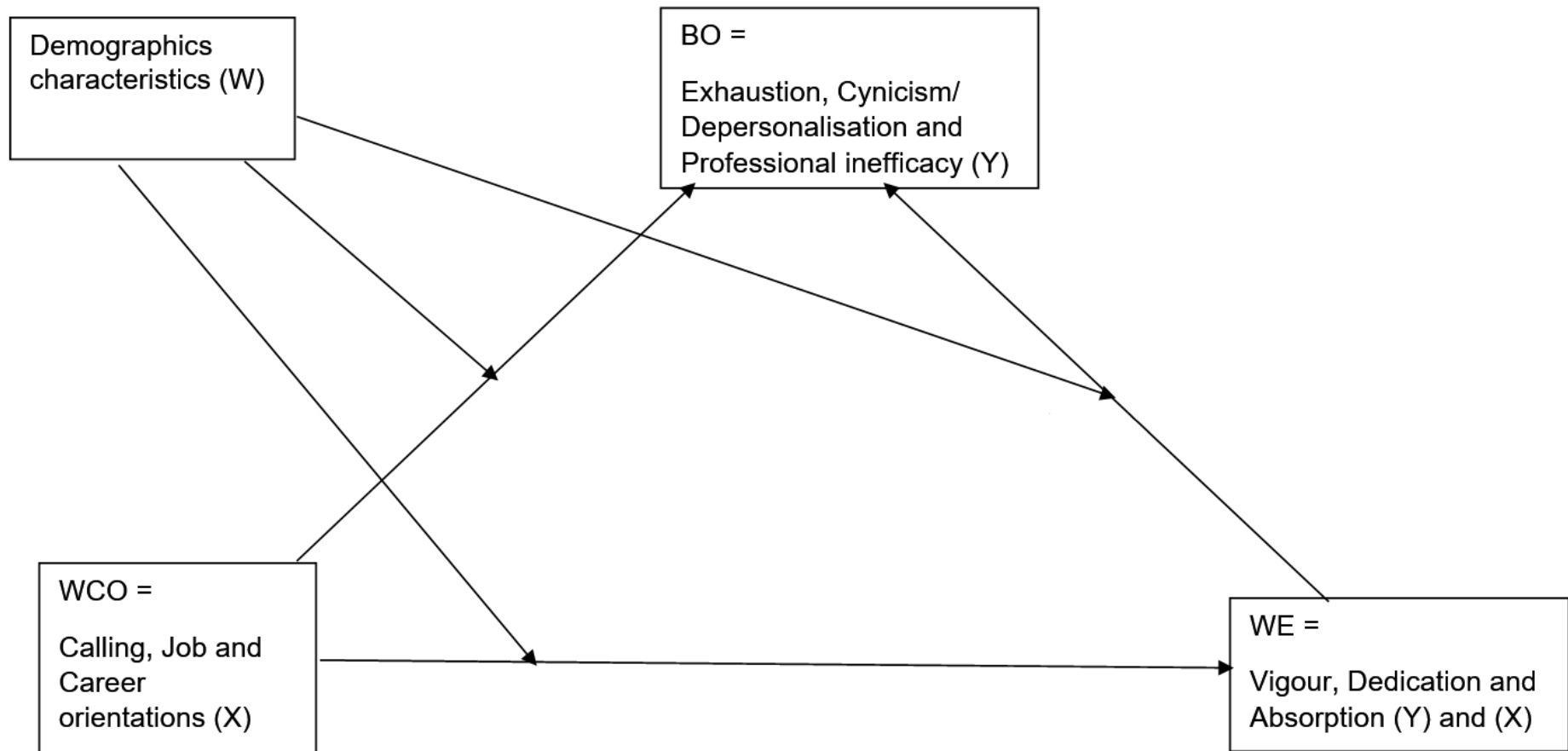


Figure 4.3:
Interrelationship between work calling orientation, work engagement, burnout, and their respective sub-dimensions with the demographic characteristics as moderator

Based on literature review, the correlations investigated and verified for Research aim 10 are as follows:

Research aim 10: To test the moderating effect of selected demographic characteristics on the interactions between work calling orientation, work engagement and burnout.

It concluded hypotheses 6 and 7 as follows:

H6₀=Selective demographic characteristics do not moderate the statistical relationship between work calling orientation, work engagement and burnout among nurses in the Khomas Region of Namibia

H6₁=Selective demographic characteristics moderate the statistical relationship between work calling orientation, work engagement and burnout among nurses in the Khomas Region of Namibia.

4.9 SUMMARY OF CHAPTER 4

This chapter discussed the construct of burnout, comprised of exhaustion, cynicism and professional inefficacy as illustrated by Maslach and Jackson (1981). The three constructs were discussed according to different authors. The chapter further discussed the JD-R model, and its exposition of the process of burnout as the opposite continuum of engagement (Bakker & Leiter, 2010; Xu & Cooper-Thomas, 2011). The factors of burnout were examined to include personality (Armon & Shirom, 2011; Garbarino *et al.*, 2014; Le *et al.*, 2014); emotional intelligence (Swartz *et al.*, 2016); work environment (Webb, 2013) and work-family conflict (Dai *et al.*, 2014). The factors contributing to job burnout were also discussed according to different authors, and the various concepts and constructs considered to be the factors of burnout were linked. The role of demographic characteristics in the incidence of burnout was also discussed and some coping strategies were indicated.

Finally, the integration of the three constructs was discussed, systematically proposing a conceptual framework on which the research hypotheses were formulated. These are presented and tested in the empirical section of the study.

The next chapter presents with research methodology employed in the study.

CHAPTER 5: RESEARCH METHODOLOGY

5.1 INTRODUCTION

This chapter discusses the research methodology employed in the current study, while positioning the philosophical foundations of the study. The methodology explains the logic behind the research methods and techniques used in the study (Leedy & Ormrod, 2013). The methodology is therefore the thinking guiding the structure of the research, while the methods are the actual procedures followed in the process of research (Walliman, 2011; Welman *et al.*, 2012). The quantitative methodology used in this study seeks to explain and predict the correlation between the constructs and elements of constructs so that they can be generalised to other groups and places. The current study aimed to establish and confirm the correlation between work calling orientation (WCO), work engagement (WE) and burnout (BO), and to develop generalisations that contribute to existing theories. The research methodology also explains the number of groups of research participants, methods to be used in drawing the participants, and the process of data collection that is essential for validating the research outcomes.

The research methodology is essential because it provides the underlying arrangement for the integration of all the components of the study and to ensure that the outcomes of the research are valid and reliable (Anderson, 2009). The quantifiable method used in this study is distinctive through the use of a standardised questionnaire that served as a tool to measure the different constructs. In addition, internal validity was assessed by investigating group differences across different demographic characteristics. Multiple regression analysis and structural equation modelling were used to determine the significant relationships between the construct measures, as hypothesised in the conceptual model, and to determine the mediating and moderating relationships.

5.2 RESEARCH DESIGN

According to Creswell (2009), a research design is the plan of action that supports the assumptions and frameworks that describe what research is all about, and discusses

the research participants with a view to reaching conclusions about the research problem put forward (Welman *et al.*, 2012).

A correlational quantitative research design was adopted in this study. A correlational quantitative research design aims to examine the situation as it is without modifying or changing the situation, or to determine the cause and effect of the constructs under investigation (Leedy & Ormrod, 2013). Leedy and Ormrod (2013) further assert that quantitative research attempts to build on and test theories, whether adopting an original approach, or an approach based on some kind of replication or extension. It draws on a relationship-based research design, seeking to describe, explain and predict (Henning, Van Rensburg, & Smit, 2004) the experiences of work calling orientation, work engagement and burnout among nurses in the Khomas Region of Namibia. The current study also expected that enrolled nurses with work calling orientation would work towards improving their qualifications to become registered nurses, especially among the younger nurses.

This study adopted a non-experimental design in which the statistical correlation (Welman *et al.*, 2012) between perceived work calling orientation, burnout and work engagement was drawn. It is a correlational design in which the three constructs were measured and analysed. The rationale for employing the non-experimental research design is to identify the relation and frequency of the three constructs among the nurse population in a natural setting. Thus, the research collected data without making any changes or introducing any data treatment (Walliman, 2011). It measured the three variables of interest and then assesses the relationship between them. This will help to determine the situation as it existed at the time of the study. This study is therefore directly linked to the core research questions on the extent to which employees perceive work calling orientation, extent of work engagement and the incidence of burnout and the relationship this has among employees in the Khomas Region of Namibia. Additionally, demographic information was collected.

The three questionnaires and the biographical data were aligned with the various aims of this study. This study adopted parametric statistical analysis due to the nature of distribution, parameters and inferences. Anderson (2009) refers to parametric statistics as statistics that make assumptions about the parameters of the population distribution from which the data are collected with the same instruments.

Data were collected from nurses working in two different types of providers, namely, government-owned institutions (GOI) and private health care providers (PHCP). The same tools were used for data collection across the different nurse groups and institutions.

This study's empirical phase consisted of eight steps, as indicated below:

Step 1: Determination and description of population and research sample;

Step 2: Choice and motivation of the measuring tools;

Step 3: Data collection procedure and administration of the measuring tools;

Step 4: Reporting on data analysis;

Step 5: Preparation of the research hypotheses;

Step 6: Statistical processing - reporting on and interpreting the results;

Step 7: Adaptation of the research results; and

Step 8: Illustration of research conclusions, limitations and recommendations.

Steps 1 to 5 will be addressed in this chapter. Steps 6, 7 and 8 will be addressed in Chapters 6 and 7.

5.3 DETERMINATION AND DESCRIPTION OF POPULATION AND RESEARCH SAMPLE

This section deals with the general population of nurses and the sampling method used to draw the sample population.

5.3.1 Population of the study

According to Welman *et al.* (2012), the population is the study object consisting of individuals, groups, organisations, human products and events. The population covers all components about which the research makes specific conclusions. When the population is small, a census study is the most appropriate to capture the views of all the elements of the population (Blumberg *et al.*, 2014). However, when the population is infinite, sampling is a more compelling method of capturing all the variable elements of the population (Blumberg *et al.*, 2014).

The population for this study included nurses of all categories working in the health care system in the Khomas Region of Namibia. Although researchers in previous studies on health issues focused mainly on registered nurses and those in higher positions (Buitendach & Mohammed, 2011; Cho *et al.*, 2014; Van Dam *et al.*, 2013; Van der Colff & Rothmann, 2014), this study included enrolled nurses as a category of para-professionals that contribute to the quality of health care in Namibia.

Therefore, nurses in this study included professional nurses, professional midwives, enrolled nurses, enrolled midwives, and other associated personnel, such as dental nurses and primary care nurses working in two public hospitals, namely, Government 1 and Government 2 hospitals; and two specific private hospitals, namely, Private 1 and Private 2 hospitals in Windhoek.

These are the largest hospitals in Namibia, with the government-owned hospitals being referral hospitals for the whole country. Thus, patients in the government health care system are referred from the Regional hospitals and health centres for more specialised treatment to either Government 1 or Government 2 hospitals. The four hospitals are also teaching hospitals, where all nurses trained in Namibia gain their practical experience. They, therefore, are representative of both the public and private health care services in Namibia.

Data was collected from these institutions with permission from the management of the institutions. Preliminary meetings were held with the management of the institutions who requested documentary evidence for evaluation by management before permission was granted. Discussions were also held to determine the best time for data collection, which would be done at low peak periods of work, as advised by the nurse managers.

5.3.2 Determination of population

As indicated, the focus of the study is nurses of all categories in the four main hospitals in the Khomas Region. This study used a cross-sectional design, comprising of diverse characteristics examined in terms of three categories of nurses. Thus, the population is divided into nurse managers, registered nurses and enrolled nurses.

Nurse managers are registered nurses who have management responsibilities, including control nurses, chief nurses and senior registered nurses. These categories

of nurses are individuals with degrees, such as Bachelor of Science qualifications and above, while registered nurses are individuals with a diploma in nursing and above, and do not necessarily have management and administrative responsibilities other than taking charge of individual patient care services. Enrolled nurses are usually individuals with a certificate in nursing.

Table 5.1 below presents a breakdown of the nurse population in the hospitals and their respective categories.

Table 5.1:
General population of nurses

Institution	Nurse Managers	Registered Nurses	Enrolled Nurses
Govt. 2 Hospital	43	297	298
Total nurse population in employment – 638			
Govt. 1 Hospital	28	242	222
Total nurse population in employment – 492			
Total nurse population in public hospital employment - 1130			
Private 1 Hospital	9	91	30
Total nurse population in employment – 130			
Private 2 Hospital	40	70	90
Total nurse population in employment – 200			
Grand total nurse population in employment – 1 460			

5.3.3 Sample

Sampling is the process of the thoughtful choice of a number of individuals to represent a greater population (Anderson, 2009). Anderson (2009) further expounds that the sampling process involves determining a sample that is statistical representation of the whole population, and which reflects the population characteristics to ensure that research outcomes are generalisable.

A study using large populations that have different elements, such as seen in the categories of nurses reflected in the table above, requires sampling. The sample must be representative of the population characteristics, avoid over-estimation or under-

estimation and must be valid (Blumberg *et al.*, 2014; Leedy & Ormrod, 2013). It is important to ensure representation and validity, which depend on the accuracy and precision of the sampling process (Blumberg *et al.*, 2014). Accuracy is the degree to which sampling avoids bias or systematic variance, while precision is the degree to which the standard error of estimation is minimised (Blumberg *et al.*, 2014).

According to Anderson (2009), the general sampling principles indicate that the smaller the population, the bigger the ratio of the sample, whereas, the higher the accuracy and generalisation requirements, the greater the sampling ratio. In addition, the more diverse the population, the more the number of variables to be examined, therefore the higher the sampling ratio that is needed for generalisation. For human resources research, Anderson (2009) advocated a sample that ensures reliability and generalisability.

Conversely, Blumberg *et al.* (2014) note that not all sample designs provide estimate precision, and the same size can produce different amounts of error variance. Furthermore, Gray (2013) argues that the sample size depends on the size of confidence intervals required, while Gill and Johnson (2010) recommend a representative sample taking into consideration the availability of respondents, costs and time required for data collection. Taking into account the diversity of the population, and the number of variables to be examined this study aimed to obtain a sample size of 15% of the total population (Anderson, 2009).

The population of nurses is estimated at approximately 1 460 employees with diverse qualifications, age, ethnic backgrounds and other demographic variables. Therefore, the intended sample for this study was 216 or more nurses that would voluntarily participate in the study. Although this research did not undertake a census of the entire nurse population, it was found that the total number of nurses as given by the Human Resources Department in public hospitals differed from the numbers held by the nurse managers for the scheduling of duties.

Two systematic stratified sampling processes were employed to draw three clusters of nurses (nurse managers, registered nurses and enrolled nurses) across the two categories of hospitals (government-owned and private-owned). The first level was to obtain a list of nurses employed in each institution, and the second level was selecting a sample from each category of nurses in each institution.

The sampling approach used in this study was a stratified sampling structure, in which sub-groups of nurses were divided according to their qualifications and positions held. Subsequently, groups of nurse managers, registered nurses and enrolled nurses were selected to participate in the study. This included part-time, contract and permanently employed nurses.

The researcher obtained a list of all the nurses employed in the four organisations from the responsible officials. Thereafter, the participants were randomly selected from across the three different strata. Data was collected from willing participants throughout the data-collection period, across the different strata. Thus, the researcher sought permission from the hospital administration to issue questionnaires for nurses on duty in a particular unit. Extra questionnaires were left at the nursing station for those nurses who were not on duty at a time the researcher was there, for them to complete, until the data were saturated across the different strata. As alluded to before, the benevolence of individual nurses formed the basis for inviting them to participate.

Table 5.2 below indicates the characteristics of the sample population.

Table 5.2:
Sample population of nurses

Organisation	Nurse Managers		Registered Nurses		Enrolled Nurses		Total sample
	Real	Sample %	Real	Sample %	Real	Sample %	
Govt. 1 Hospital	28	4.2	242	36.3	222	33.3	74
Govt. 2 Hospital	43	6.4	297	44.6	298	44.7	96
Private 1 Hospital	9	1.4	91	13.7	30	4.5	20
Private 2 Hospital	8	1.2	70	10.5	90	13.5	26
Total		13.2		105		96	216

Although Anderson (2009) recommends drawing a sample of between 10% and 30% from the population that ranges from 1 000 to 10 000 employees, the aim of this study was to get responses from at least 15% of the nurse population from each organisation and each strata/ category of nurses. The researcher collected data from any willing nurse, regardless of selection until the sample was saturated. Since there are decimal

points in the human population, the total expected sample was 216 or more participants.

5.4 CHOICE AND MOTIVATION OF THE MEASURING SCALES

With regards to measures of the constructs, one standardised questionnaire consisting of four sections was used in this study. One section dealt with capturing the demographic details of respondents, while the other three sections consisted of questions (scales) to measure the three constructs.

Standardised questionnaires are self-administered surveys that can either be mailed to participants with a return mechanism, or can be people mediated (Blumberg *et al.*, 2014). Standardised questionnaires can be identified through published research, the internet or through suppliers of assessment tools, and can be adapted for a specific purpose.

Blumberg *et al.* (2014) identify several benefits and disadvantages of standardised questionnaires for data collection. Questionnaires allow the researcher to access respondents who are not otherwise accessible, such as chief executive officers or nurses working in intensive care or theatre units and allows them time to think about the questions (Blumberg *et al.*, 2014).

Since structured questionnaires are often completed anonymously, respondents have the freedom to answer truthfully. It also allows the study to cover a large population of respondents within a short period of time (Anderson, 2009). Blumberg *et al.* (2014) list the main disadvantages of standardised questionnaires as the following: high printing and postage costs and low response rates, especially with long or complex questionnaires, which can also give skewed responses.

There were several criteria for the selection of the data-collection instruments used in this study. The criteria include the availability or existence of literature in which the tools had been used, the accessibility of tools from the internet and suppliers of assessment tools, and the advantages of questions as used in previous research (Blumberg *et al.*, 2014). A standardised questionnaire was chosen for this study, because the validity and reliability of past questionnaires had been tested, and they fit the objective of the current study. Additionally, biographical information was collected to identify the characteristics of the sample for this particular study. Furthermore, in

this segment each of the measures used was identified and justified in terms of their reliability and validity for use in this study. All the measures used, sub-dimensions and their summary of definitions were then presented in a table format.

As part of ethical compliance and to honour patent rights, permission was sought from the different individuals and organisations who developed the questionnaires. The current study selected the Work Life Questionnaire developed by Wrzesniewski *et al.* (1997) to measure work calling orientation (WCO), as previously indicated. The Utrecht Work Engagement Scale (UWES) was used (www.wilmarshaufeli.nl; Schaufeli *et al.*, 2002) to measure self-reported levels of work engagement (WE), while the Maslach Burnout Inventory (MBI-HSS), developed by Maslach and Jackson (1981), was used to measure the levels of burnout (BO). This research adheres to the original answering format and sequential order of the items in all the questionnaires.

The questionnaires used in the study are discussed in more detail in the sections below.

5.4.1 Work Life Questionnaire

The Work Life Questionnaire (WLQ) tool for measuring work calling orientation (WCO) was originally developed and used by Wrzesniewski *et al.* (1997), but was later refined by Van Zyl *et al.* (2010). According to Wrzesniewski *et al.* (1997), three sub-dimensions underlie work calling orientation, namely, job (focus on financial rewards and necessity, rather than pleasure or fulfilment; not a major positive part of life), career (focus on advancement), and calling (focus on enjoyment of fulfilling, socially useful work). Upon validation of the scale, Van Zyl *et al.* (2010), however, found that the constructs of job and calling presented as a single construct, with job and calling on opposite ends of the scale. This research study adopted the two-factor scale of Van Zyl *et al.* (2010).

The set of 18 statements (items) in the WLQ were used to substantiate the levels of meaning the respondents attach to their work, for example, 'My primary reason for working is financial.). Respondents had to indicate if they perceived the statement to be 'false' (coded as 0) or 'true' (coded as 1).

5.4.1.1 Sub-dimensions of work calling orientation

This sub-section presents a discussion of the following sub-dimension of work calling orientation, namely, job/calling orientation, as applicable to the WLQ.

a) Job/calling orientation

This sub-dimension assesses the respondents' view of work as an integral part of life, from which one derives one's identity and of the benefits to society. It also assesses the extent to which the individual would still choose and work in the same jobs again, and the extent to which one feels in control and talks about their work when they are away from it.

Individuals with a calling orientation are more likely to say that they would do their job even if they were not paid in their response to the questionnaire. The assumption of this study is that nurses with calling orientation view their work as an integral part of their lives and identity. They are expected to view their profession as a form of self-expression and personal fulfilment, which in effect, contributes to their social identity that is important to the individuals' calling orientation.

Fifteen items were used to measure this dimension. A mean score was calculated based on the 0/1 coding, with mean values closer to 0 being associated with job orientation while a mean score closer to 1 indicated a calling orientation to work.

b) Career orientation

In this sub-dimension, an assessment was done to identify the extent to which individuals view their work as a means to success, prestige, and progression. These are respondents who indicate that they work for financial security, who wish time would pass faster, anticipate vacations, and would not encourage others to do that kind of work. Individuals may also indicate that they are eager to retire.

The calling and job orientation items overlap, indicating that even respondents with a calling orientation still need to meet their basic needs through work performance, and that calling and job orientation are on a continuum.

Three items were used to measure this dimension. A mean score was calculated based on the 0/1 coding, with mean values closer to 0 being associated with low levels of career orientation, and a mean score closer to 1 indicating higher levels of career orientation.

5.4.1.2 Validity and reliability

According to Graham and Perin (2007) and Tavakol and Dennick (2011), validity and reliability are two fundamental elements in the evaluation of a measurement instrument. Validity/soundness or strength of a test/instrument is the extent to which the test/instrument measures what it is intended to measure. Validity is a measure of the degree to which items in a test measure what they are supposed to measure. Construct and convergent validity for this study are supported based on the outcomes obtained by Wrzesniewski *et al.* (1997), as well as further research conducted by Van Zyl *et al.* (2010).

At the development of the WLQ, Wrzesniewski *et al.* (1997) established that employees who viewed their work as a calling experienced higher life and job satisfaction and fulfilment, if compared to those who viewed their work as job or career. Furthermore, younger and lower-level employees were more likely to view their work as a job or career in comparison to their more mature counterparts. Calling and job ratings were strongly and inversely related, whereas career ratings were not correlated with either calling or job (Rothmann & Hamukangádu, 2013; Van Zyl *et al.*, 2010; Wrzesniewski *et al.*, 1997). Wrzesniewski *et al.* (1997) also ascertained that the calling scale tests for discriminant, convergent, and criterion-related validity, and it could be replicated across different groups; hence, the measure is generalisable across other work domains.

Reliability is concerned with the ability of an instrument to measure consistently what it is intended to measure across time and situations (Graham & Perin, 2007). When a measure has high validity and reliability, it is said to have internal consistency. Therefore, internal consistency is the extent to which test items measure the same concepts and constructs, and thus are inter-related. The test items are dependable, stable and uniform in its measurements (Graham & Perin, 2007; Tavakol & Dennick, 2011). A commonly used measure of internal consistency reliability is the Cronbach's alpha coefficient. A suggested norm for acceptable reliability is 0.60 and higher as proposed by Hair *et al.* (2014).

Van Zyl *et al.* (2010) reported Cronbach's alpha values of 0.87 and 0.80, respectively, for job/calling orientation and career orientation. These are considered well above the

norms that were proposed by Hair *et al.* (2014), namely, 0.60, and even those proposed by Nunnally and Bernstein (1984), namely, 0.70.

To measure the internal consistency reliability for the two scales used in this study, namely, job/calling and career, the Kuder-Richardson 20 (KR-20) coefficients were calculated given the dichotomous responses of 0 ('False') and 1 ('True') (Teo, 2014). The interpretation of the KR-20 aligns with the Cronbach's alpha. Rothmann and Hamukangádu (2013) also considered the Kuder-Richardson 20 (KR-20) test as appropriate for 0/1 dichotomous variables.

By treating the subsets of items as repeated measures, these indices apply the idea of replication to the instrument that consists of multiple items within the context of work calling orientation. The result of the KR-20 test for the sub-dimension job/calling is reflected in Table 5.3 below

Table 5.3:
WCO Job/Calling

Reliability statistics		
Kuder-Richardson	KR-20 based on standardised items	No. of items
0.65	0.66	15

The sub-dimensions of job and calling orientation were measured on a continuum, and the KR-20 level of 0.66 was considered acceptable for further analysis.

The result of the KR-20 test for the sub-dimension career is reflected in Table 5.4 below.

Table 5.4:
WCO Career

Reliability statistics		
Kuder-Richardson	KR-20 based on standardised items	No. of items
0.29	0.29	3

The KR-20 level of 0.29 was lower than the recommended level, and therefore, the sub-dimension of career was not considered for further analysis.

5.4.2 Utrecht Work Engagement Scale

Work engagement is a distinct construct. As previously discussed in this thesis, work engagement is defined as a positive, fulfilling, work-related state of mind that is characterised by vigour, dedication and absorption (Macey *et al.*, 2009; Maslach *et al.*, 2001; Reijseger *et al.*, 2012).

A 7-point rating scale was used, ranging from 'never' (coded as 0) to 'every day' (coded as 6). Lower mean ratings (close to 0) would be indicative of the individual experiencing lower levels of vigour, dedication or absorption, while higher ratings (close to 6), would be indicative of higher levels of vigour, dedication or absorption at work.

5.4.2.1 Sub-dimensions of work engagement

a) Vigour

Vigour consists of six items assessing the extent to which respondents feel high levels of energy and mental resilience while working, the willingness to invest effort in one's work, and persistence in the face of challenges. Some of the questions measure the extent to which respondents feel strong and vigorous.

b) Dedication

Dedication consists of five items measuring the extent to which respondents feel a sense of significance, enthusiasm, inspiration, pride, and challenge in their work. Some of the questions measure the extent to which individuals feel that time flies when at work, and whether the work inspires them.

c) Absorption

Absorption is measured by six items/ questions, as the extent to which respondents are fully concentrated and happily engrossed in their work, where time passes quickly and one has difficulties with detaching oneself from work. Some questions measure the extent of feeling immersed in work and feelings of happiness when working intensely.

According to Wissing *et al.* (2014, p. 117), being fully absorbed in one's work comes close to what has been called "flow, a state of optimal experience that is characterised by focused attention, clear mind, mind and body union, effortless concentration,

complete control, loss of self-consciousness, distortion of time, and intrinsic enjoyment” (Csikszentmihalyi, 1990).

5.4.2.2 Validity and reliability

The validity and reliability of the UWES has been tested and validated across time in different professions and cultures, and it has been widely used globally. It was developed by Schaufeli *et al.* (2002b), and they provided initial validity support for the measures of work engagement.

Both the short and longer versions have been found to be internally consistent because the Cronbach's alpha increases with test-length (Schaufeli & Bakker, 2003; Schaufeli & Buunk, 2004). For stability or test-retest reliability, all scales of the UWES are highly internally consistent (De Bruin, Hill, Henn, & Muller, 2013; Fong & Ng, 2012). Other studies have also found the internal consistencies to be acceptable, with correlation generally ranging from 0.80 to 0.90 (Carmona-Harly, Schaufeli, & Salanova, 2019; Rahmadani & Schaufeli, 2020).

Naudé and Rothmann (2004a) reported on the internal consistency, factorial validity, structural equivalence and bias of the UWES in South Africa, and maintained a three-factor (vigour, dedication and absorption) model of work engagement. Additionally, studies have also confirmed that the three-factor structure of the UWES is superior to a one-factor/ uni-dimensional, conceptualisation of engagement (Carmona-Harly *et al.*, 2019; Schaufeli & Bakker, 2004).

In past studies, the internal consistency of the three sub-dimensions of the UWES has proved to be good. Thus, in all cases, the values of Cronbach's alpha are equal to or exceed the critical value of 0.60 (Nunnally & Bernstein, 1984; Hair *et al.*, 2014). The Cronbach's alpha for the scales ranged between 0.72 and 0.90 (Schaufeli *et al.*, 2003; Schaufeli & Bakker, 2003; Sulaiman & Zohani, 2016; Xie *et al.*, 2016).

In this study, the internal consistency reliability of the instrument was found to be above the accepted norm of 0.60. The results of the Cronbach's alphas for the sub-dimensions absorption, dedication and vigour are reflected in Tables 6.12 to 6.14 below.

Table 5.5:
WE Absorption

Reliability statistics		
Cronbach's alpha	Cronbach's alpha based on standardised items	No. of items
0.65	0.67	6

The Cronbach's alpha was above 0.60, and it was, therefore, considered for further analysis.

Table 5.6:
WE Dedication

Reliability statistics		
Cronbach's alpha	Cronbach's alpha based on standardised items	No. of items
0.66	0.69	5

The reliability for this sub-dimension is above the recommended levels of 0.60.

Table 5.7:
WE Vigour

Reliability statistics		
Cronbach's alpha	Cronbach's alpha based on standardised items	No. of items
0.63	0.64	6

The Cronbach's alpha for vigour was 0.64, which was above the recommended minimum level of 0.60.

The result of the Cronbach's alpha for total work engagement scores are reflected in Table 5.8 below.

Table 5.8:
Total WE scores

Reliability statistics		
Cronbach's alpha	Cronbach's alpha based on standardised items	No. of items
0.91	0.91	15

5.4.3 Maslach Burnout Inventory

This study used the Maslach Burnout Inventory (MBI-HSS), developed by Maslach and Jackson (1981), to measure burnout (Maslach, Jackson & Leiter, 1997). The MBI-HSS consists of 22 items measuring three sub-dimensions of burnout, namely, emotional exhaustion, cynicism/ depersonalisation, and reduced personal accomplishment on two ranks of frequency and intensity (Maslach *et al.*, 2010; Naudé & Rothmann, 2004b).

The MBI-HSS is also a Likert-scale questionnaire in which respondents respond to six levels of frequency and four levels of intensity of feelings. The frequencies ranged from “a few times a year” as lowest, to “every day” as most frequent, while intensity ranged from “very mild” as lowest, to “very strong” as highest.

Although the questionnaires were self-administered, a few questions were clarified in group meetings. The final score for burnout is calculated by multiplying the assigned score for frequency by the final score for intensity. As such, scores can range between a minimum of 1 and a maximum of 24, with lower scores associated with less burnout and higher scores with higher burnout.

5.4.3.1 Sub-dimensions of burnout

a) Emotional exhaustion

Consists of 10 items measuring feelings of being emotionally over-extended and exhausted by one's work. The frequency was assessed by 6-point Likert scale questions measuring the extent to which respondents felt fatigued when they get up in the morning to face another day at work, or experience stress as a result of working with people directly. The intensity was assessed on a 4-point Likert scale from the least to most intense, as indicated. The higher the intensity and frequency, the higher the respondent is experiencing emotional exhaustion, and the lower the indication, the less fatigue is felt.

b) Professional efficacy

Personal accomplishment is measured by seven items measuring feelings of competence and successful achievement in work performance. The items measured individual feelings in dealing very effectively or ineffectively with “problems of my recipients, and feelings of positively or negatively influencing other people’s lives”

through my work. This was measured on a 6-point Likert scale, ranging from the lowest frequency to the highest, and on a 4-point Likert scale, ranging from the mildest to strongest intensity.

c) Cynicism/ depersonalisation

This section comprised of five items measuring the extent to which respondents experienced negative, callous, or excessively detached responses to various aspects of the work performance. Depersonalisation is an attempt to put a distance between the service provider and recipient by ignoring the qualities that make individuals unique and are pleasing to people (Xu & Cooper-Thomas, 2011).

This sub-dimension was measured as the extent of callous and impersonal or warm response towards the recipients of one's service, care treatment or instruction. The respondents indicated the extent to which they feel they treated some recipients as impersonal objects and were heartless or uncaring at work. It was measured on a 6-point Likert scale, indicating the lowest frequency of heartless or uncaring service to most caring. Intensity was measured on a 4-point Likert scale, ranging from mild to strong intensity.

5.4.3.2 Validity and reliability

Maslach and Jackson (1981) developed the Maslach Burnout Inventory (MBI-HSS), designed to assess various aspects of the burnout syndrome, and it has been administered to a wide range of human services professionals. Three subscales emerged from the data analysis: emotional exhaustion, cynicism/ depersonalisation, and personal accomplishment/ personal inefficacy. Various psychometric analyses showed that the scale has both high reliability and validity as a measure of burnout (Maslach & Jackson, 1981; Morgan *et al.*, 2014; Naudé & Rothmann, 2004b; Van Bogaert *et al.*, 2013).

The tool has been validated both internationally and in the South African context. However, Mostert *et al.* (2007) found evidence for a 2-factor model of burnout, consisting of exhaustion and cynicism (the efficacy scale was not included in their study). Mostert *et al.* (2007) found that the dimensions are moderately to highly correlated with statistically significance of ($p < 0.01$). Satisfactory Cronbach's alpha coefficients of ($\alpha > 0.70$) were obtained for two sub-dimensions (emotional

exhaustion=0.81 and cynicism/ depersonalisation=0.76). However, Morgan *et al.* (2014) strengthened the notion that academic burnout is best conceptualised as a 3-factor structure, consisting of exhaustion, inefficacy and cynicism.

In this study, an assessment of the internal consistency reliability for the three sub-dimensions was done by means of the Cronbach's alpha coefficients. The alpha values were all above 0.60, as reflected in the tables below, and it was therefore considered for further analysis as a sub-dimension of burnout.

Table 5.9:
Emotional exhaustion

Reliability statistics		
Cronbach's alpha	Cronbach's alpha based on standardised items	No. of items
0.87	0.86	10

As seen in Table 5.9, the alpha value for emotional exhaustion was 0.87.

Table 5.10:
Professional efficacy

Reliability statistics		
Cronbach's alpha	Cronbach's alpha based on standardised items	No. of items
0.92	0.92	7

As seen in Table 5.10, the alpha for professional efficacy was 0.92.

Table 5.11:
Cynicism/ Depersonalisation

Reliability statistics		
Cronbach's alpha	Cronbach's alpha based on standardised items	No. of items
0.76	0.78	5

As seen in Table 5.11, the alpha for cynicism/depersonalisation was 0.78.

5.4.4 Demographic characteristics

The term 'demographic characteristics' refers to the scientific, statistics and personal variables of study populations of human beings that change over time (Leedy & Ormrod, 2013). This includes the size, structure and distribution of populations that act as moderators or mediators in response to specific quantifiable characteristics of a given population.

The demographic characteristics included in this study are gender, age, race/ethnicity, educational attainment, work history, type of organisation, position held and marital status, that explain the diversity and dynamics of the study population. These characteristics were expected to explain variations in the strength and direction of the correlation between the respondents' work engagement levels (Schaufeli & Bakker, 2003), perception of work calling orientation, and levels of burnout (Wrzesnieski *et al.*, 1997).

Although nationality and ethnicity can account for individual differences in the perceptions of the constructs, this study did not address this characteristic.

5.4.4.1 Independent, dependent, mediator and moderators

Mediators and moderators are variables that explain the association between an independent and dependent variables, offering additional information about how or why two variables are strongly associated (Bennett, 2000). Mediator variables identify and explain the mechanism or processes that trigger the observed relationship (Hayes, 2015). Moderator variables explain the circumstances that influence the strength of the relationship between two other variables (Hayes, 2015).

For the purpose of this study, the following roles were defined:

WLQ => Independent variable

WE => Dependent variable

Burnout => Mediator

Demographics => Moderators

Therefore, testing was done to identify the extent to which work calling orientation affected the scores for work engagement, and to determine whether burnout affects

the association, and finally, to determine whether demographic characteristics influence the strength of the interrelationship.

Table 5.12, on the next page, provides a summary of the various measurements and scales that were incorporated into the standardised questionnaire, and which served as the basis of the data collection for the current study.

Table 5.12:
Summary of the instrument measures, sub-dimensions and definitions

MEASURE	SUB-DIMENSIONS	
Work Calling Orientation (WLQ)	<p>The WLQ consists of eighteen (18) items/ questions for which respondents answer either true or false as to whether they consider their work as a calling, job or career (Wrzesniewski <i>et al.</i>, 1997 pp. 22-25).</p> <p>This study sought to conceptualise the interrelationship between work calling orientation, work engagement and burnout, and their sub-dimensions.</p>	
	Theoretical definition	Operational interpretation
	Calling orientation means that individuals invest themselves in their work, find work inseparable from their lives and find fulfilment in the performance of their work, which they believe to be socially significant (Wrzesniewski <i>et al.</i> , 1997).	Individuals with calling orientation describe their work as integral to their lives and their identity, while contributing to the good of society. It is measured by items/ questions to which respondents indicate true or false, and then tick 'calling'.
	Persons with job orientation are only interested in the material benefits derived from work and regard work as a means to an end. The major interests and ambitions for these individuals are not expressed through work (Wrzesniewski <i>et al.</i> , 1997).	Job orientation, as a category of calling, is defined as the extent to which individuals tend to view their work as a means to an end. These individuals will prefer holidays and would not recommend their work to others. It is measured by items/questions in which respondents indicate true and false, and then click 'job orientation'.
	Career orientated individuals have a deeper personal investment in their work, and mark their achievement through advancement in the occupational structures. These advancements bring occupational social standing, increased power and higher self-esteem (Wrzesniewski <i>et al.</i> , 1997).	Career-oriented respondents will be interested in the ability to move upward in their careers, to receive raises and new titles, and to achieve the social standing that comes from their career. It is measured by items/ questions against which respondents tick true or false, and then indicate 'career'.

MEASURE	SUB-DIMENSIONS	
Work Engagement (UWES)	<p>The UWES consists of 17 items that measure employee engagement in the three sub-scales of vigour, dedication and absorption (Schaufeli <i>et al.</i>, 2002; Schaufeli & Bakker, 2004; Schaufeli & Buunk, 2003).</p> <p>This study sought to conceptualise the interrelationship between work engagement, work calling orientation, burnout, and their sub-dimensions.</p>	
	<p>Vigour is characterised by high levels of energy and mental resilience while working, the willingness to invest effort in one's work, and persistence even in the face of difficulties (Schaufeli <i>et al.</i>, 2006 p. 702).</p>	<p>The vigour sub-dimension is the extent to which respondents feel high levels of energy and mental resilience while working, the willingness to invest effort in one's work, and persistence in the face of challenges.</p> <p>It is measured by 6 items/ questions on a 7-point Likert scale, ranging from the lowest to the highest.</p>
	<p>Dedication is evidenced by being strongly involved in one's work and experiencing a sense of significance, enthusiasm, inspiration, pride and challenge (Schaufeli <i>et al.</i>, 2002).</p>	<p>The dedication sub-dimension measures the extent to which respondents feel a sense of significance, enthusiasm, inspiration, pride, and challenge in their work. Thus, it also measures the extent to which individuals feel a sense of significance in solving work-related challenges.</p> <p>It is measured on a 7-point Likert scale from the lowest to the highest in 5 items/ questions.</p>
	<p>Absorption is characterised by being fully concentrated and happily engrossed in one's work, and is associated with the intensity of one's focus on a work role (Schaufeli <i>et al.</i>, 2002).</p>	<p>The absorption sub-dimension is measured by 6 items/ questions as the extent to which respondents are fully concentrated and happily engrossed in their work, where time passes quickly and one has difficulties with detaching oneself from work.</p> <p>It is measured on a 7-point Likert scale, the higher the score, the more absorbed, and the lower the score, the less absorbed.</p>

MEASURE	SUB-DIMENSIONS	
Burnout	<p>The MBI-HSS consists of 22 items measuring three levels of burnout, namely, emotional exhaustion, depersonalisation and reduced personal accomplishment in frequency and intensity (Maslach & Jackson, 1981; Naudé & Rothmann (2004b). Assessment of this construct was done to clarify the interrelationship of work calling orientation, work engagement, and their sub-dimensions, as reflected in the conceptual model in Figure 4.3.</p>	
	<p>Emotional exhaustion is the emotional, cognitive and physical strain incurred from the prolonged intensity of job challenges (Demerouti <i>et al.</i>, 2003; Maslach & Jackson, 1981).</p>	<p>Emotional exhaustion is measured as the extent to which respondents feel emotionally over-extended and fatigued as a result of work-related activities.</p> <p>It is measured by 9 items/ questions in relation to frequency, assessed on a 6-point Likert scale, and intensity is assessed on a 4-point Likert scale from the least to most intense, as indicated.</p>
	<p>Professional efficacy measures the extent to which respondents feel competent and successful in the achievement in their work with people (Maslach & Jackson, 1981).</p>	<p>Professional efficacy is the individuals' feelings of dealing effectively or ineffectively with the problems of recipients, and positively or negatively influencing other people's lives through their work.</p> <p>This is measured by 9 items/ questions to identify the frequency on a 6-point Likert scale, ranging from the lowest frequency to the highest, and intensity on a 4-point Likert scale from mildest to strongest.</p>
	<p>Cynicism/ Depersonalisation measures the extent to which respondents feel that they give unfeeling and impersonal responses towards recipients of their care or service (Maslach & Jackson, 1981).</p>	<p>Cynicism/ Depersonalisation is the extent to which respondents experience being negative, callous or uncaring towards the recipients of their service.</p> <p>This is measured on a 6-point Likert scale indicating least to most frequent feelings, and intensity is measured on a 4-point Likert scale from the mildest to strongest intensity.</p>

MEASURE	SUB-DIMENSIONS	
Demographics	Demographic characteristics explain variances that influence the possibilities and constraints that people face, which in turn, might affect behaviour. In this study, the demographic characteristics are taken as mediators and moderators that explain the interrelationship between the constructs and their sub-dimensions, as indicated in the conceptual model in Figure 4.3.	
	Gender	Male and female
	Age	Four categories from 18-35, 36-45, 46-55, and 56 years and above
	Educational attainment	Three categories from certificate, diploma, degree as highest level of education.
	Work history in years	Categories of tenure, according to years of service, ranging from >10, 11-20, 31-40, 41-50, to 51 years and above.
	Type of organisation	Two categories of participating institutions, namely, state-owned and privately-owned.
	Position	Three categories of line and staff and those serving in the supervisory and managerial cadre.
	Marital status arrangements	Three categories, namely, single, married, divorced and others.

5.5 VALIDITY AND RELIABILITY OF THE STUDY

This section deals with the suitability of the research design, internal validity and threats, and external validity and threats. The accuracy and meaningfulness of quantitative design is an important aspect of ensuring credibility (Leedy & Ormrod, 2013).

Accuracy has to do with the extent to which the research reporting is clear, precise, unambiguous and truthful (Welman *et al.*, 2012). It is, therefore, important to ensure that the study report is grammatically correct and of high readability quality.

Anderson (2009) explains research meaningfulness as the extent to which the study design has enough control measures to ensure that the results can be generalised. The researcher needs to ensure that the research output can be generalised to other populations and situations.

Internal validity is the extent to which the design and data allow for accurate conclusions about relationships, and cause and effects of the results (Blumberg *et al.*, 2014; Gray, 2013; Leedy & Ormrod, 2013). Internal validity is also referred to as Hawthorne errors (Blumberg *et al.*, 2014). This may, for example, mean that respondents do not answer questions honestly or accurately because they are being observed. For the purpose of this study, the questionnaires were distributed and the nurses were left to complete them in their own time without researcher interruption, except where help was requested.

External validity is the extent to which the study results apply to situations beyond the study or generalisation of results to other real-life settings (Drost, 2011). The data collections tool used in this study is a standardised questionnaire comprising of different sections, including verifying populations and geographical locations. No existing studies were identified on the correlation of the three constructs of work calling orientation, work engagement and burnout among nurses in Namibia. To control for errors in external validity, a representative sample of respondents was identified and data collected. The sample consists of individuals from diverse cultural backgrounds, educational attainment, personality, age and other demographic characteristics. The aim was to render the correlational study replicable and applicable to different contexts and situations.

Reliability in social science research is the extent to which measurements are repeatable when different persons perform the measurements, on different occasions, under different conditions, with instruments that measure the same thing (Drost, 2011). It is the consistency or stability of measurement over a variety of conditions in which the same results should be obtained. It is therefore important that the tools used for data collection discriminate the measures across groups and the course of time (Van der Westhuizen, 2015).

The tool used in this study consisted of different sections that have been standardised and validated in different study conditions and occasions. The demographic characteristics have been consistent in measuring the same thing. The internal consistency of the tool has been documented in the discussion of each specific tool in Table 5.12.

Correlation coefficient analysis was done to further control for errors of measurements in this study. The novelty of questionnaires to respondents is controlled by leaving the researcher's contact details for the respondents to allow them to follow up on items that are not clear. Practically, some respondents did call to seek clarification about specific questions in the questionnaire.

5.6 FORMULATION OF RESEARCH HYPOTHESES

This research study collected data from a sample of nurses in health care institutions in the Khomas Region in Namibia. This research holds that every rationally justifiable assertion can be scientifically verified and that people experience the world through perceptions that are influenced by pre-conceptions and beliefs (Walliman, 2011). Quantitative data were used to verify the study's hypotheses and to measure the correlations between work calling orientation, work engagement and burnout among nurses in the Namibian health care system. The data analysis also verified the research assumptions and it was also used to generate new ideas and hypotheses that can be recommended for future research.

The first correlational investigation of possible interrelationships was between work calling orientation and work engagement, to establish if, and to what extent, correlations exist. Though several studies have focused on how work calling orientation develops and the related job outcomes (Dobrow, 2013; Duffy & Sedlack 2010; Wrzesniewski *et al.*, 1997), no studies focusing on work calling orientation, work

engagement and burnout could be found that were conducted in Namibia. Therefore, the overarching question in this study is:

Does work calling orientation explain work engagement levels, and is this relationship mediated by levels of burnout?

Several studies have been done on burnout among nurses in southern Africa, including: Mostert *et al.*'s (2011) study on the correlation with job characteristics, work engagement and employee well-being; and the study by Delobelle, Rawlinson, Ntuli, Malatsi, Decock and Depoorter (2009) on workload, training and employee wellness. However, despite the researcher's best efforts, no studies could be found on the correlation between work calling orientation, work engagement and burnout in the Namibian environment.

In the development of the Maslach Burnout Inventory, Maslach and Jackson (1981) established a correlation between work engagement and burnout as a continuum, with work engagement on the positive end, and burnout on the negative end. Work engagement, according to Schaufeli and Salanova (2014), and Demerouti and Bakker (2007), is a positive construct, while burnout is a negative work outcome.

In another study on burnout and work engagement, Schaufeli and Taris (2014) concluded that burnout is the opposite of work engagement, whereas workaholism has some features of burnout and work engagement. Burnout is negatively related to job satisfaction and organisational commitment, whereas work engagement and workaholism are positively-related work outcomes (Schaufeli & Salanova, 2014). The negative work outcome of cynicism and reduced professional efficacy were negatively related to both work engagement and workaholism (Andreassen *et al.*, 2012).

The current study hopes to contribute to the existing knowledge on the role that work calling orientation plays in the incidence of burnout in the Namibian context. The research questions that feed into addressing the main aim of the study from an empirical perspective are as follows:

- To what extent do nurses in the Khomas Region of Namibia measure on work calling orientation, work engagement and burnout?

- Do the levels of work calling orientation, work engagement and burnout differ significantly between groups of nurses in the Khomas Region of Namibia, as defined by selected demographic characteristics?
- Is there a positive significant relationship between the levels of work calling orientation and work engagement among nurses in the Khomas Region of Namibia?
- Is there a negative significant relationship between the levels of work calling orientation and burnout among nurses in the Khomas Region of Namibia?
- Is there a negative significant relationship between the levels of burnout and work engagement among nurses in the Khomas Region of Namibia?
- Does burnout have any mediating effect on the relationship between the levels of work calling orientation and work engagement among nurses in the Khomas Region of Namibia?
- Do specific demographic characteristics have any moderating effect on the interaction between work calling orientation, work engagement and burnout among nurses in the Khomas Region of Namibia?

The rationale for this study is to identify the statistical relationship between work calling orientation, work engagement and burnout, since no correlational studies were found in the case of nurses in the Namibian context. Against this background, a set of specific hypotheses were formulated to inform the research design. These are presented in Table 5.13, and each one is aligned to the research aim it addresses.

Table 5.13:
Research aims and hypotheses

RESEARCH AIMS	RESEARCH HYPOTHESIS
Research aim 5: To investigate whether significant differences exist between groups of nurses in the Khomas Region of Namibia, as defined by selected demographic characteristics, in relation to work calling orientation, work engagement and burnout.	HO_{1A} =There are no significant differences in the levels of work calling orientation, work engagement and burnout between groups of nurses in the Khomas Region of Namibia, as defined by selected demographic characteristics.
	HO_{1B} =There are significant differences in the levels of work calling orientation, work engagement and burnout between groups of nurses in the Khomas Region of Namibia, as defined by selected demographic characteristics.
Research aim 6: To identify the nature of the statistical relationship between levels of work calling orientation and work engagement among nurses in the Khomas Region of Namibia.	HO_{2A} =There is no significant linear relationship between the levels of work calling orientation and work engagement among nurses in the Khomas Region of Namibia.
	HO_{2B} =There is a significant positive linear relationship between the levels of work calling orientation and work engagement among nurses in the Khomas Region of Namibia.
Research aim 7: To identify the nature of the statistical relationship between work calling orientation and burnout among nurses in the Khomas Region of Namibia.	HO_{3A} =There is no significant linear relationship between the levels of work calling orientation and burnout among nurses in the Khomas Region of Namibia.
	HO_{3B} =There is a significant negative linear relationship between the levels of work calling orientation and burnout among nurses in the Khomas Region of Namibia.
Research aim 8: To identify the nature of the statistical relationship between burnout and work engagement among nurses in the Khomas Region of Namibia.	HO_{4A} =There is no significant linear relationship between the levels of burnout and work engagement among nurses in the Khomas Region of Namibia.
	HO_{4B} =There is a significant negative linear relationship between the levels of burnout and work engagement among nurses in the Khomas Region of Namibia.
Research aim 9: To test the mediating effect of burnout on the interaction between work calling orientation and work engagement.	HO_{5A} =Burnout does not mediate the relationship between the levels of work calling orientation and work engagement among nurses in the Khomas Region of Namibia.
	HO_{5B} =Burnout mediates the relationship between the levels of work calling orientation and work engagement among nurses in the Khomas Region of Namibia.

RESEARCH AIMS	RESEARCH HYPOTHESIS
Research aim 10: To test the moderating effect of selected demographic characteristics on the interactions between work calling orientation, work engagement and burnout.	HO_{6A} =Selected demographic characteristics do not moderate the statistical relationship between work calling orientation, work engagement and burnout among nurses in the Khomas Region of Namibia.
	HO_{6B} =Selected demographic characteristics moderate the statistical relationship between work calling orientation, work engagement and burnout among nurses in the Khomas Region of Namibia.

5.7 DATA COLLECTION PROCEDURES AND ADMINISTRATION OF THE MEASURING TOOLS

The researcher made appointments for the data collection after receiving the ethical clearance letters from the individual hospitals and UNISA (see Appendix A). The researcher then obtained a list of the nurses on the register of employment and the schedule of work, which were used for sample selection, according to categories of nurses.

At agreed times and venues, the researcher went to the institutions and waited for nurses to complete the surveys after explaining it to them. It was suggested that the best time for this would be late in the evening, early in the mornings and on weekends, as these are regarded as 'off-peak' work times (meaning the nurses will have time to complete the survey, without it interfering with their work).

Questionnaires, informed consent forms and respondents' information were put in envelopes marked with the names of the selected respondents and handed to the respondents at agreed venues and times. The respondents could then leave the completed questionnaires in the envelopes provided for the researcher to collect at agreed times and workplace venues.

The researcher explained the data-collection method and tools to the prospective participants, including the fact that participation is voluntary and there should be no expectations of any payments or penalties for participation, or lack thereof. The participants were also informed of their individual rights to accept or decline participation without prejudice. The researcher gave the participants her contact details should there be any further questions or need for clarification. After completion, the researcher collected all the completed surveys.

The arrangements with the private hospitals were that they would organise groups of nurses for the researcher to go and explain the process to them. The nurses would then complete the questionnaires at specific times as agreed upon. Sealed ballot boxes were placed at agreed venues in which the respondents could place the completed questionnaires, if they were not able to give them back during the times that researcher was visiting their venue.

5.8 DATA ANALYSIS

This research used quantitative research methods in the form of a large-scale survey of the different categories of nurses working in the four major hospitals in the Khomas Region of Namibia. A quantitative study method is distinctive through the use of a standardised tool that outlines the measures of a variety of constructs and elements (Leedy & Ormrod, 2013).

To ensure the accuracy and clarity of data capturing, a code book was developed in MS Excel format. The responses from the completed paper-based questionnaires were captured in the MS Excel spreadsheet according to the codes allocated. The collected data was then imported into a statistical software program, IBM SPSS (version 25), where the necessary data reduction and clean-up processes were performed. IBM SPSS (version 25) was also used for the majority of data analyses.

A number of different statistical techniques were used in the present study, as discussed below.

5.8.1 Descriptive statistical analysis

Firstly, descriptive statistical analysis provided the narrative for the sample by producing frequency distributions for the biographical variables. The results are presented in Section 6.2. The profile of the sample is described according to the following demographic characteristics and groups:

- **Gender** – Two groups of gender: Male and Female.
- **Age** – Four groups: 30 years and younger; 31-40; 41-50; and 51 and above.
- **Educational levels** – Four groups: Certificate; Diploma; UG degree; Higher levels.
- **Work history/ tenure** – Six groups: 0-5 years; 6-10 years; 11-20 years; 21-30 years; 31-40 years; 41 years and longer.
- **Type of organisation** – Two groups of institutions: Government-owned; Privately-owned.
- **Position held** – Three groups: Enrolled nurse; Registered nurse; Nurse manager.
- **Marital status** – Three groups: Single; Married/ engaged; Divorced/ widow.

These characteristics were used in additional analysis to investigate whether significant differences exist between respondents' ratings in relation to the constructs.

Further univariate descriptive statistical analysis focused on identifying the mode for categorical data and calculating measures of central tendency (means), variations (standard deviations) and patterns of distribution (kurtosis and skewness) for each of the construct measures. According to Pallant (2010), the standard deviation provides an impression of the distribution of scores around the mean. Kurtosis is a measure of whether the data are heavy-tailed or light-tailed, relative to a normal distribution. Skewness is a measure of symmetry, or more precisely, the lack of symmetry. A distribution, or data set, is symmetric if it looks the same to the left and right of the centre point. A narrow range between the lowest and the highest scores indicates that scores cluster closely to the average data, while a broad range indicates that data are more spread out, or there are outliers (Leech *et al.*, 2011).

5.8.2 Testing for group differences

The next phase focused on inferential analysis with the aim of conducting hypotheses testing to determine group differences in terms of the construct measures. Inferential statistics are estimations of parameter(s) and testing of statistical hypotheses to allow the use of sample measures to generalise about the populations from which the sample was drawn (Blumberg *et al.*, 2014; Judd, McClelland, & Ryan, 2009). Although it is important that the sample accurately represents the population, sampling errors naturally occur, and thus a sample is not expected to perfectly represent the population (Blumberg *et al.*, 2014).

The inferential analysis for this study included tests to identify group differences, as well as bi-variate correlation analysis, path and regression analysis, and testing for moderation and mediating effects.

For all the tests, a significance level of 0.05, or 5%, was adopted. The level of significance reflects statistical significance in terms of a specific probability (Cohen & Cohen, 2014). One of the most frequently used statistical level of significance measures is based on $p \leq 0.05$ as a rule of thumb, which provides for 95% confidence in the results being accepted as standard when applied in other research contexts (Cohen & Cohen, 2014). In other words, if a researcher observes the relationship to be occurring 95 times out of 100, that is regarded as 5% of the difference, then one could say with some level of confidence that there seems to be a high degree of association between the variables (Cohen & Cohen, 2014).

To test for group differences, the type of data and assumed underlying sampling distributions were considered. A one-sample Kolmogorov-Smirnov test was conducted to assess if the sample data could be considered coming from a normal distribution. A visual inspection of the plotted data also aided in determining if the data deviated from the normal distribution (refer to Section 6.3 for histograms). Results from the Kolmogorov-Smirnov test were consistent for all the scale measures with reported p-values below 0.05. This suggested that the odds of the distribution of the construct measures coming from a normal distribution with a specified sample mean and standard deviation is very low. The researcher, therefore, opted to employ non-parametric testing as part of assessing group differences. More specifically, Kruskal–Wallis tests were used in cases where three or more groups were compared and the Mann–Whitney test where two groups were compared.

Both the Kruskal-Wallis H test and Mann-Whitney U test ranked the data for each construct to see what the different groups of demographic characteristics' rank totals were (Pallant, 2010). The Mann-Whitney U test statistic compares median differences between two rank totals, while the Kruskal-Wallis H test reveals the differences between more rank totals (Pallant, 2010). The Kruskal-Wallis test statistic approximates a chi-square distribution, with $k-1$ degrees of freedom (df). If the number of observations in each group is 0.05 or more, then the null hypothesis is rejected but if less than 0.05, then the null hypothesis cannot be rejected (Pallant, 2010).

The outcome from this analysis addressed Research aim 5 and Hypothesis 1. Refer to Section 6.4 for results pertaining to group differences.

5.8.3 Correlation analysis

The correlation analysis focused on exploring and establishing the nature of relationships between two or more of the construct measures, as well as the direction and strength of the relationships (Hair *et al.*, 2014; Leedy & Ormrod, 2013). Calculation of a correlation coefficient allowed the researcher to measure the strength and direction of the bivariate relationship between the pair of variables.

The correlation coefficient ranges between the values -1 to 1 (Hair *et al.*, 2014). A negative value implies an inverse relationship, such that as one of the variables increases, the other one decreases. A value of 0 implies that no relationship was

identified, while a positive value implies that both variables increase in the same direction (Hair *et al.*, 2014).

Given the distribution of the data, Kendall's tau_b correlation coefficients were used to explore the strength and direction of relationships between the constructs and their sub-dimensions in rank order (non-parametric). In addition to checking p-values for significance, the following guidelines proposed by Hair *et al.* (2014) assisted in the interpretation of the coefficients, namely absolute values between:

- 0.11 to 0.20 signifies a very weak correlation
- 0.21 to 0.40 signifies a weak correlation
- 0.41 to 0.60 signifies a moderate correlation
- 0.61 to 0.80 signifies a strong correlation
- 0.81 to 1.0 signifies a very strong correlation.

The outcome of this analysis partly addressed Research aims 6, 7 and 8, and Hypothesis 2, 3 and 4. Refer to Section 6.5 for the results pertaining to the correlation analyses.

5.8.4 Path analysis

Path analysis involves solving a set of simultaneous regression equations that theoretically establish the causal relationship among a set of observed variables in a path model (Schmacker & Lomax, 2010). Path analysis is a special case of structural equation modelling (SEM). The objective of SEM is to offer a measureable test of a theoretical model, using different models to show relationships among observed variables (Hair Jr., Babin, & Krey, 2017).

Based on the conceptual model presented in Figure 1.1, several path analyses were performed to test the various research hypotheses. As a path analysis comprises of a set of multiple regression models, it examines both direct and indirect relationships between a dependent variable (or variables) and two or more independent variables (Hair Jr. *et al.*, 2017; Leedy & Ormrod, 2013; Pallant, 2010). By using the path analysis, both the magnitude and significance of theoretical causal connections between variables can be assessed. It was therefore deemed an appropriate statistical data analysis approach.

More specifically, the path analysis aimed to test the relationship between job/calling, burnout and work engagement. AMOS (version 25) was used as the statistical software to conduct the path analysis.

The outcome from this analysis partly addressed Research aims 6, 7 and 8, and Hypothesis 2, 3 and 4. (Refer to Section 6.6 for results pertaining to the path analyses.)

5.8.5 Mediation and moderation

While the path analyses were used mainly to identify the direct path relationships for the observed and measured construct variables, further regression analysis aimed to assess the moderating and mediating effects.

A mediation effect manifests between independent (predictor variable) and dependent variables (outcome variable), adding more precision of interaction and tells a more comprehensive story of the interaction between the variables (Hair Jr. *et al.*, 2017). Little *et al.* (2012) explain the mediator as a variable that comes between two others, adds precision and tells more story to the relationship. Strength of mediator explains the why and how of the relationships (Hayes, 2015; Pallant, 2010). Here the focus fell on testing for burnout as a mediator between job/calling (independent variable) and work engagement (dependent variable).

A moderator variable causes a change in the strength or direction in the interaction between the predictor variable and the outcome variable (Little, Card, Bovaird, Preacher, & Crandall, 2012). A moderator is a variable that strengthens or weakens the relationship (Little *et al.*, 2012). A moderator causes changes in the strength or direction between the predictor variable and outcome variable (Hayes, 2015). Here the focus fell on testing the moderating effects of the selective demographic variables on the relationship between job/calling (independent variable), burnout (mediator) and work engagement (dependent variable). As such, the analysis allowed for testing moderated mediation.

Mediation and moderation were tested using PROCESS (version 3.4.1) (Hayes, 2018), which is a specific add-on macro for IBM SPSS that conducts observed-variable mediation, moderation, and conditional process analysis (Hayes, Montoya, & Rockwood, 2017). The authors state that moderated mediation or conditional indirect effects occur when the treatment effect of an independent variable X on an outcome

variable M, via a mediator variable W, differs depending on the levels of a moderator variable M (Hayes *et al.*, 2017). Specifically, either the effect of X on the Y, and/or the effect of Y on M depends on the third latent variable known as the mediator or moderator.

The outcomes of this analysis addressed Research aims 9 and 10, and Hypothesis 5 and 6. The results from the mediation and moderation analyses are presented in Section 6.6.

5.9 SHORTCOMINGS AND SOURCES OF ERROR

Leedy and Ormrod (2013) indicate research shortcomings as errors that might occur if research draws unwarranted inferences as a result of personal convictions and undue eagerness to come up with conclusions that are not scientifically proven; drawing conclusions on cause and effect in a correlational study; and lack of objectivity and honesty in the report. Gray (2013) discusses several sources of error to include population-specific errors which can be avoided by selecting the correct population of nurses, since the study is on nurses in Namibia. However, the lack of participation by church-owned hospital in the study can skew the results. Sampling errors occur when a probability sampling method is used to select a sample, but the resulting sample is not representative of the population concerned (Gray, 2013). Unfortunately, some element of sampling error is unavoidable and can be accounted for in confidence intervals of analysis (Judd *et al.*, 2009).

Gray (2013) posits that selection error occurs in a non-probability sampling method. In the current study, the selection of respondents was based on those nurses who were accessible and agreeable to participate in the study. However, since the researcher is not known to any of the respondents, friendship and association did not influence the characteristics of the respondents.

Non-response error can exist when the sample obtained differs from the original selected sample (Gray, 2013). Non-response in this study, occurred when respondents did not participate and therefore were not included in the sample, and instances where individuals agreed to participate in the study and then left out certain sections of the questionnaires. The researcher also collected all the responses and only disposed of those that could not be used. Judd *et al.* (2009) illustrate measurement errors as those generated by the measurement process itself, and it

represents the difference between the information generated and the information wanted by the researcher (Osborne, 2008).

Leedy and Ormrod (2013) recommend that researchers should bear in mind that inferential statistics are based on probability, therefore, the data report should either support or not support the hypothesis, as opposed to proving the hypothesis. Furthermore, they recommend honesty and objectivity in reporting, even when there are errors and flaws regarding the hypothesis and the respondents' dropout rate.

5.10 LIMITATIONS OF THE METHODOLOGY

The methodology used in this study clearly states how the data would be collected and how the research would address the research problem to meet the stated objectives. However, there are some limitations inherent to this research, as discussed below.

Sample bias may result from some respondents giving wrong information or being unwilling to respond (Zikmund, Babin, Carr, & Griffin, 2013). In addition, the answers to some questions may be biased if the respondents do not want to give honest answers because they may not be socially acceptable. For example, the burnout questions dealing with depersonalisation/ cynicism, where individuals may be required to indicate that they have negative feelings towards their clients (patients), which may not be socially acceptable. Such questions include "I feel I treat some recipients as if they were impersonal objects" or "I have become more callous (heartless or un-caring) toward people since I took this job".

In this study, some nurses who declined from participating in the study during the busy December festivities, were revisited in February and March and some were willing to participate then. Honouring the confidentiality promise restricted the researcher from going back to the respondents who left out some questions to clarify the reasons, or to persuade the respondents to complete the omitted questions. Response bias, according to Zikmund *et al.* (2013), occurs when respondents tend to answer questions according to a certain view or attitude that leads to misrepresentation of the truth.

In this study, the researcher attempted to be present while the respondents were completing the questionnaires, so that the researcher could clarify any issues that

arose. Some respondents complained that the questionnaire was too long and the researcher was obliged to leave the questionnaires and collect the completed copies at times that were more convenient.

Participation in the research was voluntary, and therefore respondents either opted to participate or not without fear of reprisal. The freedom of choice on the part of respondents limited the size of the research sample. At the end of the data collection process, 261 respondents were valid and considered for further investigations.

The questionnaire is included in Appendix B.

5.11 SUMMARY OF CHAPTER 5

This chapter provided the introduction to the research methodology, the research design aligned to the research aims, and the steps used in this study. The discussions focused on the study population, justification for choice of population and sample. The chapter presented a detailed deliberation of the choice and motivation of the measuring tools, data collection procedures and the administration of the measuring tools for this study. The process of reporting on data analysis was explained, plus the formulation and preparation of the research hypotheses. Further, the methods of statistical data processing, reporting and interpretation of the result were discussed in relation to the adaptation of the research results. Finally, the chapter dealt with the process of adopting research conclusions and the limitations of the study.

The next chapter presents the empirical data analysis and results in relation to the research hypotheses and research aims.

CHAPTER 6: DATA ANALYSIS

6.1 INTRODUCTION

This chapter describes the data analysis in relation to the hypotheses of this research, and includes the processes involved in data reduction, tests of normality, homogeneity of variance and the results.

The data reduction and organising process involves examining the data for accuracy, entering the data in the software statistical package, transforming the data, developing, and documenting a database structure that integrates the different measures.

Data analysis involved an evaluation of the measures of the main constructs, work calling orientation (WCO), work engagement (WE), burnout (BO), and their sub-dimensions (job/calling for work calling orientation; vigour, dedication and absorption for work engagement; exhaustion, cynicism/ depersonalisation and professional accomplishment for burnout); to judge the levels according to the respondents and to verify underlying relationships. The steps that were followed in the data analysis were discussed in Section 5.8.

In the next section, the demographic characteristics of sample are presented and discussed in detail.

6.2 DEMOGRAPHIC CHARACTERISTICS OF THE RESPONDENTS

While the aim was to collect data from as many members of the target population (N=1 460) as possible, a minimum response rate of at least 15% was specified. This was to obtain some level of representation. A final sample of n=261 was obtained, which accounts for 17.9% of the total targeted nurse population from the different categories of nurses. The overall completion rate of questions was 90% and higher for some questions.

The results are presented in the form of summary bar grams, pie charts and figures in terms of each of the demographic variables.

6.2.1 Gender composition of respondents

The demographic characteristics indicated that out of 261 respondents, 229 were female, representing a ratio of 87.7%, while the 32 male respondents represented 12.3%. The statistical result pertaining to the gender of the sample is presented in Figure 6.1 below:

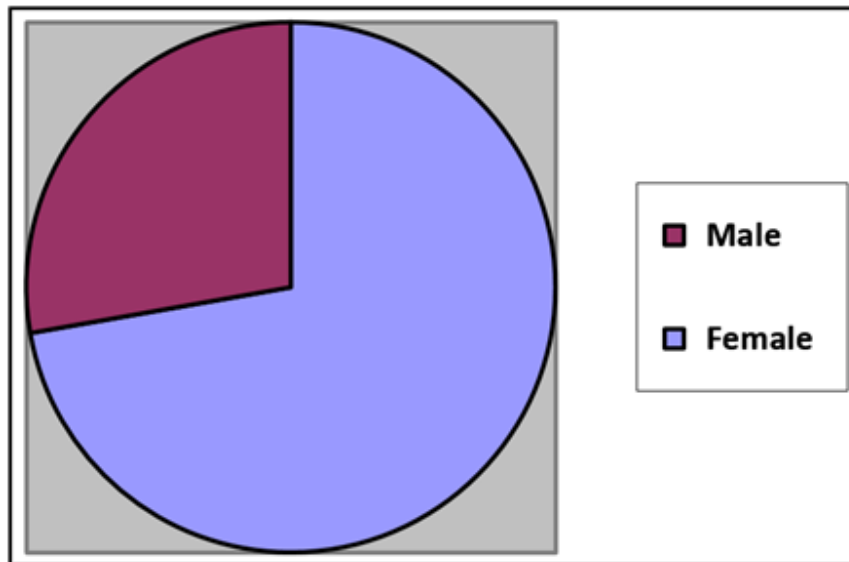


Figure 6.1:
Gender distribution of respondents

Despite male participation of 12.3%, data indicates that nursing as a caring profession still remains a largely female-dominated (87.7%) profession (Lane, 2000; Perrone-McGovern *et al.*, 2014; Thompson & Feldman, 2010). Thus, as expected, there are more female than male nurses in all categories.

6.2.2 Age composition of respondents

It is noted that three respondents did not indicate their age category. The largest group of respondents in terms of age was the age bracket of 51 to 60 years (31.8%), while the age categories of 21 to 30, and 41 to 50, represented 17.8% and 21.7%, respectively, of the respondents. The proportional distribution of the sample by grouped age is presented in Table 6.1.

Table 6.1:
Age distribution of respondents

		Frequency	%	Valid %	Cumulative %
Valid	20 and below	1	.4	.4	.4
	21-30	56	21.5	21.7	22.1
	31-40	46	17.6	17.8	39.9
	41-50	56	21.5	21.7	61.6
	51-60	83	31.8	32.2	93.8
	61 and above	16	6.1	6.2	100.0
	Total	258	98.9	100.0	
Missing	System	3	1.1		
Total		261	100.0		

The majority of the respondents were above the age of 50 years, with a total of 99 respondents. The expectation was that most respondents would be below 40 years of age, as this category is the information explosion group who are expected to embrace enquiry, so the result is contrary to expectations. The majority age bracket may indicate that higher qualifications are related to length of service, as expected.

It is to be expected that more mature and experienced nurses are more likely to finish their tasks within a shorter time, and could therefore allocate time to complete the questionnaire. On the contrary, the younger nurses may be hard pressed to finish their allocated tasks in time, and then find it difficult to attend to arbitrary issues like filling in questionnaires. Although this was not expected, Buitendach and Mohammed (2011) also found that the more mature nurses were more willing to participate in studies. This may have an effect on the generalisation of results, since maturity has been found to positively correlate with work engagement and professional efficacy (Van der Colff & Rothmann, 2014). This finding will be kept in mind when interpretations are done, and considered when making interpretations based on age.

6.2.3 Ethnicity composition of respondents

With regards to ethnicity, most of the respondents (181) were Namibians of African descent that comprised 69.3% of the respondents, 32 were coloured (12.3%), while 20 were white (7.7%), and there were 14 non-Namibian (5.4%). The results are presented in Table 6.2 below.

Table 6.2:
Race/ Ethnicity distribution of respondents

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Black	181	69.3	73.3	73.3
	Coloured	32	12.3	13.0	86.2
	White	20	7.7	8.1	94.3
	Foreign	14	5.4	5.7	100.0
	Total	247	94.6	100.0	
Missing	System	14	5.4		
Total		261	100.0		

The demographic distribution of race/ethnicity indicates that Namibian of African descent formed the largest group of nurse respondents, which is representative of the demographic distribution of the general nurse population of Namibia. It also indicates that Namibia as a country has done well in training her own nurses to serve the communities, both in government and in privately-owned hospitals.

However, the nurse population ratio to the Namibia country population still needs a lot of improvement, just as in most African countries that have a shortage of qualified nurses. This characteristic may not be included for further analysis when dealing with different groups of respondents.

6.2.4 Qualification levels of respondents

With regards to the qualification levels of the respondents, the study found that 0.8% of the respondents had doctorate qualifications, while 2.3% had master's degrees, and 0.4% had an honours qualification. Of the respondents, 9.2% had first degree qualifications. Some obtained the qualification after three years, and others took four years to obtain the first degree qualification. The largest number of respondents had either a two-year or three-year diploma qualification, and they comprised 58.6% of the sample. Professional nurse registration requires a diploma and above qualification. However, in this study, 23.8% of the respondents had a certificate qualification. This is a para-professional qualification but these individuals are sometimes left to man the nursing duties for a whole unit over an extended period of time, and were considered

for the study because they contribute to the quality of nursing care, as indicated in Table 6.3 below:

Table 6.3:
Educational attainment

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Certificate	62	23.8	25.0	25.0
	Diploma- 2years	105	40.2	42.3	67.3
	Diploma -3years	48	18.4	19.4	86.7
	Degree -3 years	18	6.9	7.3	94.0
	Degree - 4yrs	6	2.3	2.4	96.4
	B/Degree Honours	1	.4	.4	96.8
	Masters	6	2.3	2.4	99.2
	Doctorate	2	.8	.8	100.0
	Total	248	95.0	100.0	
Missing	System	13	5.0		
Total		261	100.0		

A professional nurse qualification is typically associated with the quality of nursing care that is provided to patients (Atinga, 2013; Puri, Chandigarh *et al.*, 2012). Registered nurses are those with diploma and higher qualifications (70.6%) who may be promoted and progress to serve as nurse managers. Individuals who have obtained a diploma in nursing and higher qualifications are registered as professional nurses with the Namibian Nursing Board, which has international recognition.

Individuals with certificate qualifications are recognised as enrolled nurses, and they accounted for 26.8% of all the respondents. This is a category of para-professionals who support nursing professionals in providing nursing care. In the Namibian public sector, certificate holders provide nursing care services without professional supervision, and they were therefore considered in this study as a cadre that affects the quality of nursing care, especially in the public sector. Individuals may then attend development educational programmes and progress into the professional position of registered nurse.

The largest group of respondents of over 65% of nurses in this sample have a diploma qualification and above, and are thus registered as professional nurses, which impacts positively on the quality of nursing care (Van Bogaert *et al.*, 2013; Gevers, Demerouti, 2013; Van Dam *et al.*, 2013). Accordingly, the higher the nurse qualifications, the better the quality of nursing care to be expected. Further analysis of group differences will collapse the grouping according to certificate, diploma, degree, masters and PhD.

6.2.5 Length of service for respondents

Regarding tenure, the largest group of respondents were those with 5 years of service or less, which accounted for 19.9% or 52 respondents, followed by those with 6-10 years of service, comprising 14.6% or 38 respondents. Two clusters of respondents, namely, respondents with 21-25, and 26-30 years of service, formed the third-largest group, followed by those with 11-20 years of service that was comprised of 13.4%, or 35 respondents. Additionally, 12.3%, or 32 respondents, have served for 31-35 years, while there were 17 respondents with 36-40 years of service, which is 6.5% of the sample, and 3.1%, or 8 respondents, had 41-45 years of service. Finally, only 0.8%, or 2 respondents, had 46 and more years of service.

The numbers of respondents decreasing with the increase of years of service is a normal attrition level, due to the increase of chronological age leading to retirement. The more experienced nurses also tended to be in higher leadership positions, as is expected, because they have had a lifetime to improve their qualifications and be promoted to higher levels. More experienced nurses will also have better coping skills for workplace stress and perform more effectively as result of experience (Van der Colff & Rothmann, 2014).

Table 6.4 below presents a summary of the length of service information.

Table 6.4:
Work years

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	0-5	52	19.9	20.3	20.3
	6-10	38	14.6	14.8	35.2
	11-20	35	13.4	13.7	48.8
	21-25	36	13.8	14.1	62.9
	26-30	36	13.8	14.1	77.0
	31-35	32	12.3	12.5	89.5
	36-40	17	6.5	6.6	96.1
	41-45	8	3.1	3.1	99.2
	46 and above	2	0.8	.8	100.0
	Total	256	98.1	100.0	
Missing	System	5	1.9		
Total		261	100.0		

It is interesting to note that more than 50% of the respondents participating in the study had 20 or more years of service. In a study of two Namibian private hospitals with more than 40% respondents having 20 or more years of service, Buitendach and Mohammed (2011) concluded that coping strategies or styles had a beneficial safeguard effect on occupational well-being and job satisfaction among respondents. In a later study by Beukes and Botha (2013), the results showed that length of service is associated with positive feelings towards work and therefore higher engagement levels, and increased ability to cope with different work challenges (Mageau & Vallerand, 2007).

6.2.6 Professional positions held

The results indicated that 152 nurses held the professional position of registered nurse, which accounted for the largest population of respondents at 58.2%. In addition, 37 respondents fell in the nurse managers' category (14.2%), also registered nurses but holding managerial positions. There were 70 enrolled nurses (26.8% of respondents) who not only act as support services but also frequently upgrade their

qualifications to registered nurses. Although 62 respondents indicated they had a certificate in nursing, there were a few who had just reported back to work after completing their diploma programme, but had not yet been registered. As indicated, a higher nurse qualification is associated with better quality of nursing care (Atinga, 2013; Puri *et al.*, 2012).

The composition of professional position held is displayed in Figure 6.2 below.

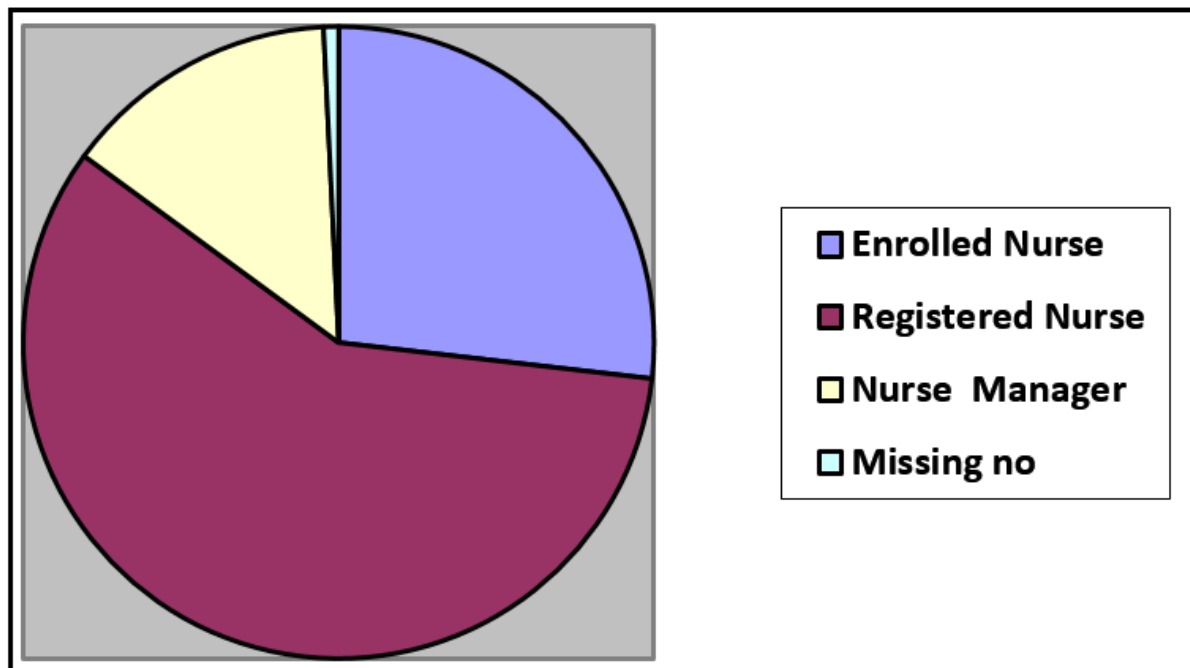


Figure 6.2:
Professional composition

Professional levels and education contribute to the development of motivation and professional identity and dedication (Heggen & Terum, 2013). For professional nurses their positions may be indicative of the ability of the higher qualified nurses to cope with job demands, and therefore, they may be able to attend to other non-job requirements like completing the questionnaire. They also form the largest category of nurses in both private and government-owned hospitals (Brockmeyer, 2012; Buitendach & Mohammed, 2011; The Ministry of Health and Social Services Review, 2008) resulting in higher response rates.

6.2.7 Marital status composition

The results indicate that the largest category of respondents were married (53.3% of the respondents), followed by singles at 33.7% and the rest were either divorced (5.7%), widowed (4.6%), or engaged (2.3%).

Table 6.5 below provides a summary of the composition of the marital status of the respondents.

Table 6.5:
Marital status

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Single	88	33.7	33.8	33.8
	Married	139	53.3	53.5	87.3
	Divorced	15	5.7	5.8	93.1
	Widowed	12	4.6	4.6	97.7
	Engaged	6	2.3	2.3	100.0
	Total	260	99.6	100.0	
Missing	System	1	.4		
Total		261	100.0		

Married employees might have the responsibility to care for immediate family and extended family members. Family responsibility can have a conflicting role with work roles. For example, among Chinese Call Centre employees, family interference with work was positively related to work and service sabotage, with emotional exhaustion mediating in this relationship (Dai *et al.*, 2014). Additionally, in a study on emotional labour, Chou *et al.* (2012) outlined the frequency of nurse interactions with difficult patients as positively related to emotional exhaustion and negatively to job satisfaction.

In the African cultures, even single employees have the responsibility of caring for extended family members (Buitendach & Mohammed, 2011). Thus, in effect, every employee has work responsibilities and social demands that draw on individual resources and capabilities.

6.2.8 Organisation type

Most respondents (60.9%) originated from government-owned institutions and 36.0% from private institutions, which is line with the fact that the Government of the Republic of Namibia is the largest employer of nurses and health care services (Brockmeyer, 2012; Lagomarsino & Kundra, 2008).

The type of organisation distribution is displayed in Figure 6.3 below.

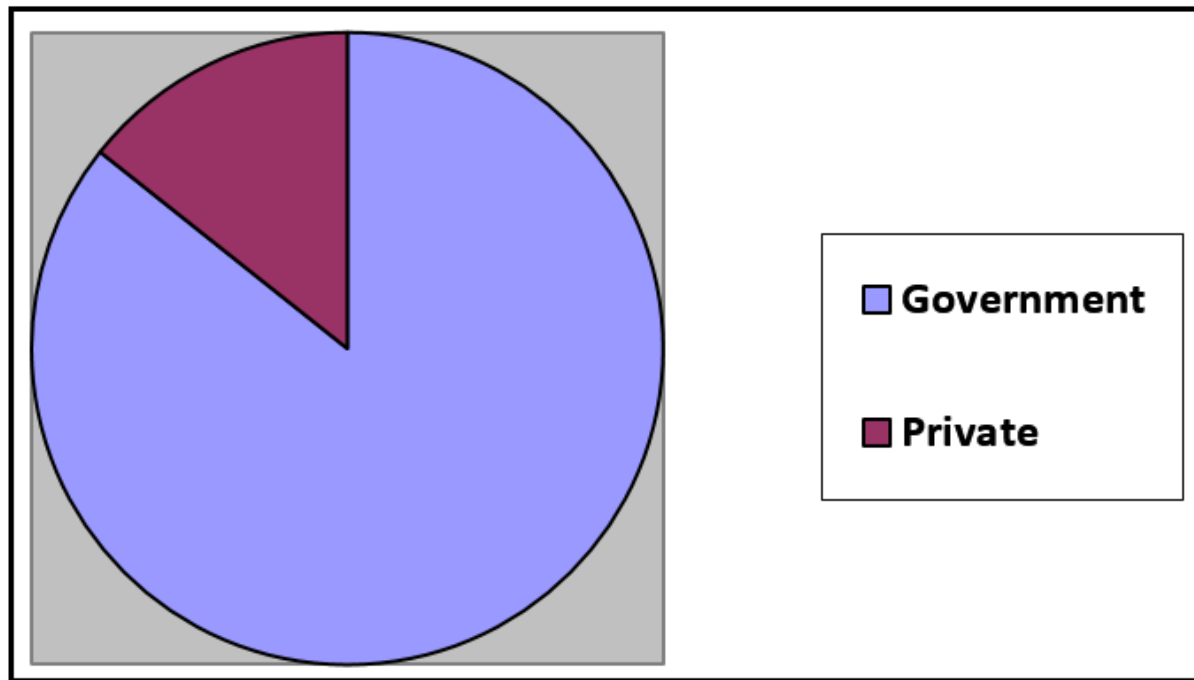


Figure 6.3:
Type of organisation

It was expected that the private sector would provide more organisational support for employees than government institutions (Alfes *et al.*, 2013; Beukes & Botha, 2013; Buitendach & Mohammed, 2011). Overall, it can be concluded that the goal of a well-distributed sample, as per the sample size of 261, from a population of 1 460 was achieved, and that it can serve for further data analysis.

6.2.9 Summary of demographic characteristics

Although a larger sample would have been preferred, the current number of respondents is sufficient for generalisation of results to the wider population.

With regards to age, the largest number of respondents was from the age group of 40 years and above, representing more than 50% of the respondents. It is evident that

the total number of respondents (186) had a diploma qualification and above, and were registered as professional nurses. The maturity of respondents and qualifications was found to impact positively the respondents' willingness to participate in research (Buitendach & Mohammed, 2011). It is a general trend that there are more highly qualified nurses in the Namibian Health Care system compared to other SADC countries like Malawi (Coetzee, McKerrow, Chimwaza, Molyneux, North, & Sieberhagen, 2016). This should positively impact the quality of service, as indicated in other studies (Atinga, 2013; Puri *et al.*, 2012).

Gender skewness in the study is to be expected because there are only 32 male respondents, indicating that nursing is a profession still dominated by women (Lane, 2000; Perrone-McGovern *et al.*, 2014; Thompson & Feldman, 2010). Marital status is also skewed, since the largest number of respondents (n=139) are married, in comparison to single respondents (n=88), which is the next largest category.

There is also slight skewness of data regarding age, since the largest category of respondents were above the age of 50 years, contrary to expectations. This may indicate the ability of more mature nurses to manage their time effectively to be able to participate in other activities. Additionally, the group of respondents could have risen in the ranks to managerial level and are therefore modelling behaviour to their young and upcoming colleagues.

The length of service is related to age, because the more qualified and experienced nurses in this study tended to be older than 40 years. Even though married respondents accounted for more than 50% of respondents, their social responsibility may not differ from the unmarried respondents, since in the African context the working person tends to look after every other needy member of the family. Therefore, the social demands on married and unmarried nurses may be the same.

Respondents working for government-owned institutions accounted for over 60% of the participants, because the government is the largest employer in Namibia. Nurses seemed to circulate through both government and private-owned institutions, in search of change and different types of rewards, and therefore, there was no difference in demographic characteristics based on type of institution. This concludes the biographic description of the sample, and the analysis will now move to the research constructs in the next section.

6.3 CONSTRUCT DESCRIPTIVES

Descriptive statistics is used to describe or summarise data in ways that are meaningful and useful. For this study both frequency distributions were calculated as well as measures of central tendency (means), variations (standard deviation) and patterns of distribution (kurtosis and skewness) for each of the construct measures.

Statistics were calculated for each of the three scales namely the Work Life Questionnaire (WLQ), the Utrecht Work Engagement Scale (UWES) and the Maslach Burnout Inventory (MBI-HSS) are reported in the sub-sections below. It addressed the first research aim, namely, to measure levels of work calling orientation, work engagement and burnout among nurses in the Khomas Region of Namibia.

The results presented in this section addressed Research aim 4.

6.3.1 Descriptive statistics for work calling orientation

Firstly, the WLQ consisted of two sections in which respondents had to evaluate statements according to true or false. The true response referred to respondents' perception of work as a calling, while the false indicated job orientation. The statistics pertaining to the responses formed the basis of the two construct measures that were used going forward. The second part of the questionnaire required respondents to indicate if they relate each statement to either job or calling.

These statistics are presented in Table 6.6 below.

Table 6.6:
Descriptive analysis for work calling orientation (WCO)

	False %	True %	Total %
My work makes world a better place (WCBetterworld)	10.0%	90.0%	100.0%
My work is one of the most important things in my life (WCOWorkimportant)	10.7%	89.3%	100.0%
I find my work rewarding (WCOReward)	12.3%	87.7%	100.0%
I enjoy talking about my work to others (WCOTalkwork)	25.7%	74.3%	100.0%
I expect to be in a higher-level job in five years (WCOHigherlevel)	27.6%	72.4%	100.0%
I feel in control of work life (WCOIncontrol)	31.0%	69.0%	100.0%
I would choose my current work life again if I had the opportunity (WCOChooseagain)	31.8%	68.2%	100.0%
I view my job as just a necessity of life, much like breathing or sleeping (WCONecessity)	42.5%	57.5%	100.0%
If I was financially secure, I would continue with my current line of work (WCOSTillwork)	46.0%	54.0%	100.0%
I view my job primarily as a stepping-stone to other jobs (WCOSTeppingstone)	46.4%	53.6%	100.0%
I expect to be doing the same work in five years (WCOSamework)	50.6%	49.4%	100.0%
My primary reason for working is financial / to support my family and lifestyle (WCOFinancial)	53.3%	46.7%	100.0%
I never take work home with me (WCOTakehome)	55.6%	44.4%	100.0%
I tend to take my work with me on vacations (WCOVacation)	62.5%	37.5%	100.0%
When I am not at work, I do not think much about my work (WCOThinkwork)	63.6%	36.4%	100.0%
I am very conscious of what day of the work week it is and I greatly anticipate weekends. I say "Thank God it's Friday!" (WCOTGIF)	67.0%	33.0%	100.0%
I would not encourage young people to pursue my kind of work (WCONotencourage)	69.7%	30.3%	100.0%
I'm eager to retire (WCORetire)	71.6%	28.4%	100.0%

In this study, the calling orientation items had the highest mode, ranging from 40% to 68%, while job orientation ranged from 10% to 33%.

6.3.1.1 Calling orientation

Individuals with calling orientation describe their work as integral to their lives and their identity (Wrzesniewski *et al.*, 1997:22-25); resonating with individual values and beliefs (Riem, 2003, Shea-van-Fossen & Vredenburg, 2014) and providing meaning and community benefits (Dik & Duffy, 2009; Gales & Lenz, 2013). The items with highest mode include “I find my work rewarding - 68%”; and “My work makes world a better place - 64%”, indicating that most respondents find their work rewarding and were of the opinion that they contributed to improving the world, through their work. Therefore, the modal class for work calling orientation was calling orientation.

Wrzesniewski *et al.*, (1997) explained calling orientation as the degree to which people view their work as inseparable from life, provides fulfilment, and is an end in itself. People who view their work as a calling have also been found to have positive work experiences, as well as positive career and general life outcomes (Duffy & Sedlacek, 2007; Wrzesniewski *et al.*, 1997).

In terms of the calling items, more than 50% of the respondents indicated that they consider their jobs as a calling. This means that respondents “find their work rewarding - 68%”; “consider that their work makes world a better place - 64%”; “they view their jobs as just a necessity of life, much like breathing or sleeping - 58%”; and finally, that they “consider their work as one of the most important things life - 59%”.

These items are similar to the items measuring passion, meaning and destiny, used by Dobrow and Tosti-Kharas, (2011) in developing a scale measure for calling. The items “I expect to be in a higher-level job in five years was also rated by 45% of respondents, and “I expect to be doing the same work in five years - 47%” which also indicated a Calling orientation. This may indicate respondents’ expectations to progress along the seniority ladder, but still be working as nurses because they consider their work life as a calling.

6.3.1.2 Job orientation

Fewer respondents perceived their work as job orientation, with a frequency rate of 30% to 33%, indicated on four items. These respondents indicated that they feel in

control of work life, view their jobs primarily as a stepping-stone to other jobs, and “my primary reason for working is financial / to support my family and lifestyle” and “would not encourage young people to pursue their kind of work”. This may be an indication that the respondents like their work for the financial gains but are not dedicated to the tasks performed. It could also mean that they like the work, but the working conditions are not conducive, since most of the respondents were working in the public sector.

Job orientation as a sub-dimension or category of work calling orientation, is defined as the extent to which individuals tend to view their work as a means to an end. Individuals with job calling orientation work to receive pay or benefits to support their hobbies, family, or life outside work (Wrzesniewski *et al.*, 1997). They prefer jobs which do not interfere with their personal lives and are not as likely to have a strong connection to the workplace or their job duties. Figure 6.4 below provides a graphical illustration of the data distribution for job/calling. Mean values closer to 0 being associated with job orientation while a mean score closer to 1 indicated a calling orientation to work.

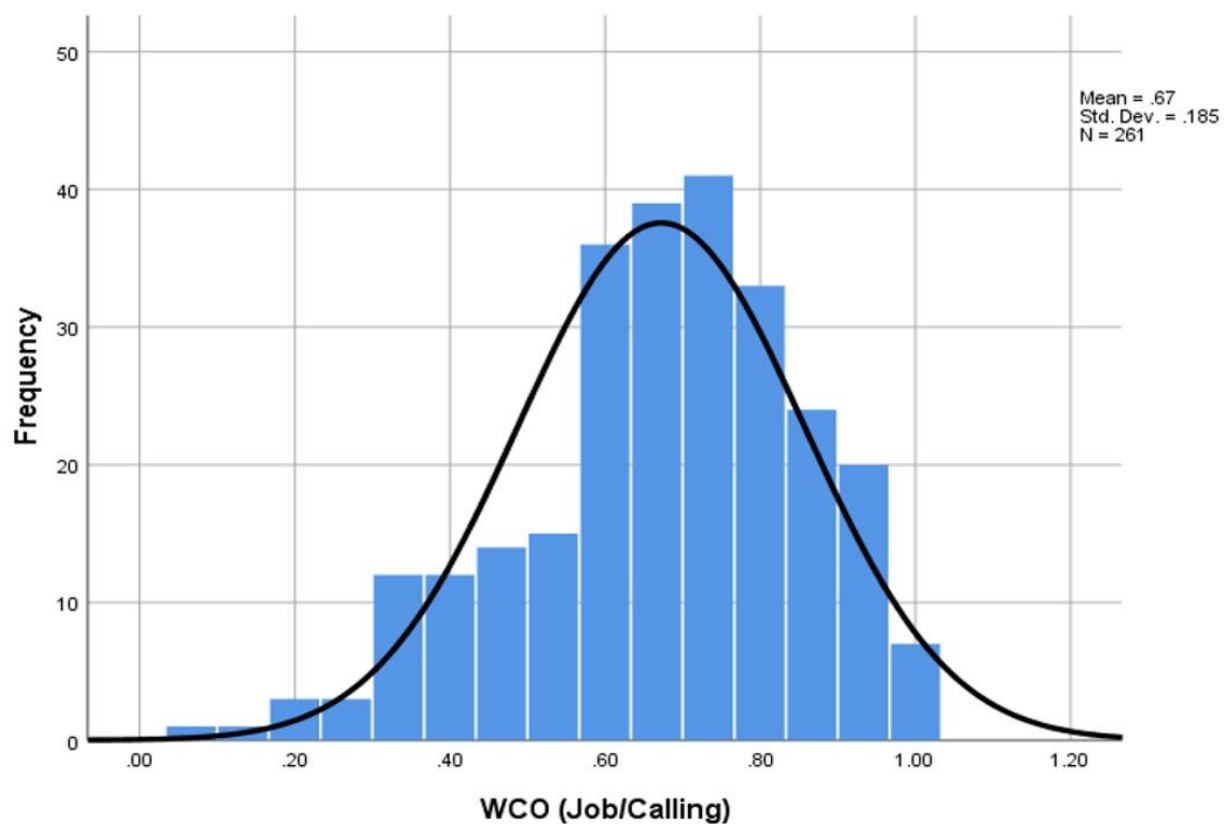


Figure 6.4:
Graphical representation of job/calling mean and SD

Figure 6.4 above shows the mean = 0.67 and SD = 0.185, indicating that the distribution of respondents for job/calling tended towards the higher end (calling orientation). The skewness = -0.568 and kurtosis = 0.084 indicated that the distribution was not symmetric but was light-tailed to the left, which provide further evidence of the sample leaning towards calling orientation.

In summary, the findings on the work calling orientation sub-dimensions showed that most of the respondents indicated that they consider their work as a calling with four of the calling items scoring above 50%. The demographics also indicate that the majority of the respondents were older than 40 years and had 20 years or more work experience, which may influence their perception of work as a calling. It could be that most respondents perceive their work as a calling, since they have worked for long and have had the opportunity to exit and explore alternative job opportunities, but did not. It may also indicate that individuals who are not like-minded may already have left the employment of the organisation, in search of more desirable job options.

Some of them may have been challenged to craft their jobs to their personal preference (Shea-van-Fossen & Vredenburg, 2014; Wrzesniewski *et al.*, 2010). The aforementioned authors are of the opinion that job crafting can help individual employees restructure or modify their jobs, to remain energised and to incorporate individual motives, strengths and passions.

This also illustrates that respondents may have risen in the ranks over the span of their work life, helping them to align their work with calling/job orientation, (Wrzesniewski *et al.*, 2010). It is important to note that respondents who viewed their work as a job (having a job orientation) scored less than 33% on the job orientation items.

6.3.2 Descriptive analyses for work engagement

Work engagement was analysed with the modal class as the measure of central tendency. Categorical data helps give meaning to the respondents' perception of their job as engaging in seven frequency distributions (Cohen *et al.*, 2013), ranging from never, few times a year, once a month or less, few times a month, once a week, a few times a week and every day. The mode is used where the observed variables are measured on a categorical scale.

The dimensions of work engagement were measured on an ordinal categorical scale with the seven categories each. The analysis involved the presentation of frequency tables for each indicator and the modal class as the average (measure of central tendency). The aim was to identify the items with the highest scoring daily for the largest group of respondents.

This is presented in Table 6.7 on the next page.

Table 6.7:
Descriptive analysis for work engagement

	Never	Few times a year	Once a month or less	Few times a month	Once a week	Few times a week	Every day	
	0	1	2	3	4	5	6	Modal Class
Time flies when I am working (WEAB1)	2%	3%	0%	7%	5%	18%	65%	6
When I am working, I forget everything else around me (WEAB2)	12%	5%	0%	10%	0%	23%	50%	6
I feel happy when I am working intensely (WEAB3)	4%	3%	0%	12%	0%	19%	62%	6
I am immersed in my work (WEAB4)	3%	6%	0%	18%	0%	21%	51%	6
I get carried away when I am working (WEAB5)	13%	9%	11%	8%	0%	21%	37%	6
It is difficult to detach myself from my job (WEAB6)	20%	11%	4%	10%	0%	14%	41%	6
I find the work that I do full of meaning and purpose (WEDE1)	1%	5%	0%	5%	4%	13%	73%	6
I am enthusiastic about my job (WEDE2)	3%	5%	0%	14%	0%	18%	61%	6
My job inspires me (WEDE3)	3%	4%	0%	10%	0%	13%	70%	6
I am proud of the work that I do (WEDE4)	2%	3%	0%	10%	0%	11%	74%	6
To me my job is challenging (WEDE5)	8%	8%	6%	0%	8%	13%	56%	6
At my work, I feel bursting with energy (WEVI1)	0	7%	13%	8%	8%	28%	35%	6

	Never	Few times a year	Once a month or less	Few times a month	Once a week	Few times a week	Every day	
	0	1	2	3	4	5	6	Modal Class
At my job, I feel strong and vigorous (WEVI2)	2%	7%	0%	12%	0%	26%	53%	6
When I get up in the morning I feel like going to work (WEVI3)	5%	6%	4%	7%	0%	24%	54%	6
I can continue working for very long periods at a time (WEVI4)	3%	7%	0%	10%	0%	23%	58%	6
At my job I am very resilient mentally (WEVI5)	16%	6%	8%	7%	0%	21%	41%	6
At my work I always persevere, even when things do not go well (WEVI6)	4%	6%	2%	5%	0%	17%	67%	6

Table 6.7 reflects the respondents' feelings of engagement at the sub-dimension level on a seven level Likert scale. The study considered individuals who had the feelings every day to be significant for high levels of engagement.

6.3.2.1 Absorption

Absorption is characterised by being fully concentrated and happily engrossed in one's work, where time passes quickly and one has difficulties with detaching oneself from work (Schaufeli *et al.*, 2002).

Out of the six items for the sub-dimension of absorption, more than 50% of the respondents reported having the feelings daily in three items. The respondents indicated that "time flies when are working" - 62%; "they feel happy when working intensely" - 65%; "being immersed in their work" - 51%, and "when working they forget everything else around them" - 50%.

Being happy, losing sense of time and getting lost in work may indicate that most respondents felt absorbed in their work. Being fully absorbed in one's work comes close to what has been called 'flow', a state of optimal experience that is characterised by focused attention, clear mind, mind and body union, effortless concentration, complete control, loss of self-consciousness, distortion of time, and intrinsic enjoyment (Csikszentmihalyi, 1990).

However, only 37% of the respondents indicated that they get carried away, and 41% find it difficult to detach themselves from their work daily. With regards to the ability to detach themselves from their work, 20% of the respondents indicated that they have never had any difficulties in detaching themselves from their work.

Figure 6.5 below provides a graphical illustration of the data distribution for the work engagement sub-dimension of absorption.

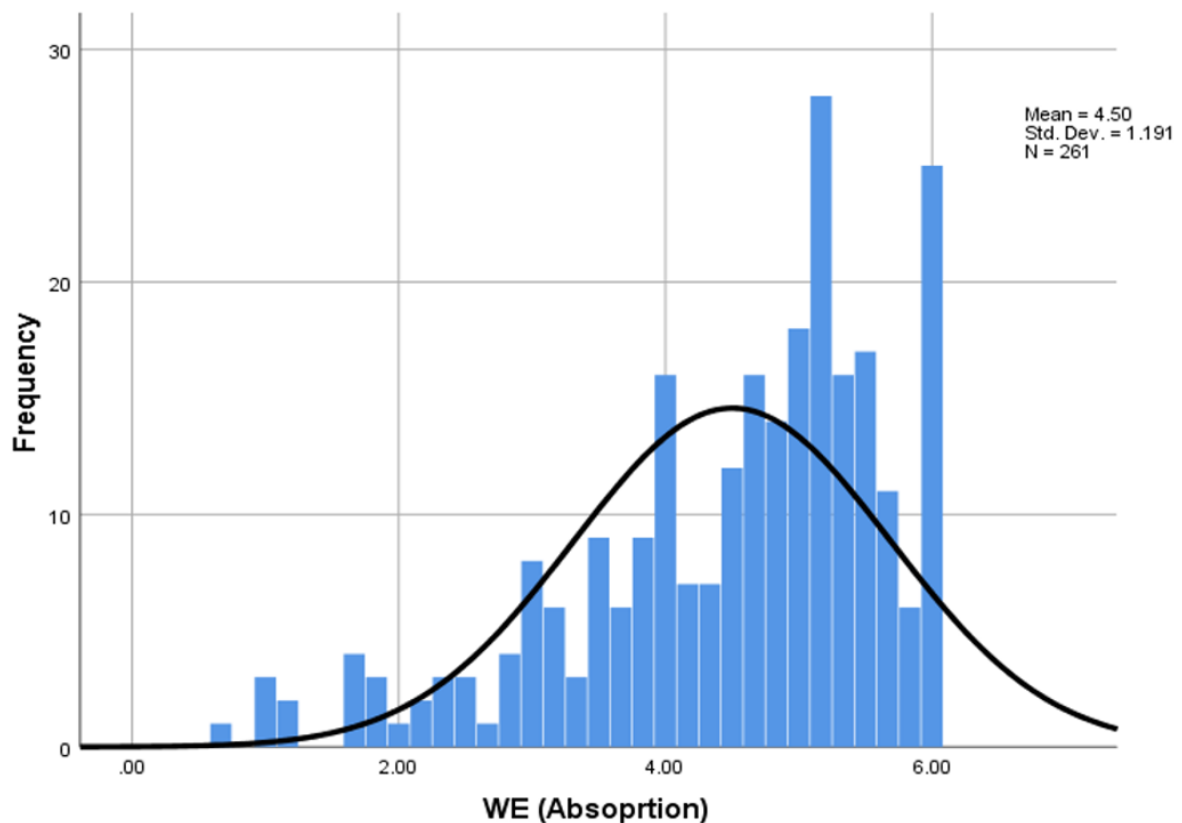


Figure 6.5:
Graphical representation of Absorption mean and SD

Figure 6.5 above shows the mean= 4.50 and SD= 1.191, indicating that the data distribution was not concentrated to the centre. This was confirmed by the skewness= 1.005 and Kurtosis= 0.598, indicating skewness to the right and light-tailed to the left.

This points out that a larger percentage of respondents do not get carried away, and easily detach themselves from their work. It may be an indication of the ability to empathise, not sympathise, which is a healthy trait for caregivers, or alternatively, some of them may long to leave the work environment and do something different. This is good, because caregivers should have the ability to empathise without becoming involved in the suffering of their patients, in line with positive health care (Wissing *et al.*, 2014).

Being absorbed in one's work is also close to 'flow', (a state of optimal experience that is characterised by focused attention, a clear mind, mind and body union, effortless concentration, complete control, loss of self-consciousness, distortion of time, and intrinsic enjoyment), a construct of positive psychology (Wissing *et al.*, 2014; Csikszentmihalyi, 1990). Gevers and Demerouti (2013) add that absorbed individuals have a high propensity to engage with specific events or tasks with total attention, or

in a state of heightened concentration, positive affect, and feelings of timelessness, engrossment and engagement (Schaufeli & Bakker, 2004).

By implication then, the more than 50% respondents who are absorbed in their work contribute to the quality of nursing care in the Khomas Region of Namibia. However, the rest who are not absorbed may contribute to negative outcomes that lead to complaints by service recipients.

6.3.2.2 Dedication

The results showed that most respondents reported a strong dedication to their work on all items as follows: “I find the work that I do full of meaning and purpose” - 73%; “I am proud of the work that I do” - 74%; “My job inspires me” - 70%. In the five items related to dedication, more than 50% of the respondents indicated experiencing the feelings daily.

Schaufeli and Bakker, (2004:295) posit that dedication is characterised by a sense of significance, enthusiasm, inspiration, commitment to work, feelings of responsibility, and a sense of volition (Klein *et al.*, 2012) and it is also viewed as the opposite of cynicism/ depersonalisation, a sub-dimension of burnout (Maslach *et al.*, 2001; Van der Colff & Rothmann, 2014).

This follows that a larger percentage of respondents was dedicated and committed to their work that may have resulted from their level of education and professional identity.

Figure 6.6 below provides a graphical illustration of the data distribution for the work engagement sub-dimension of dedication.

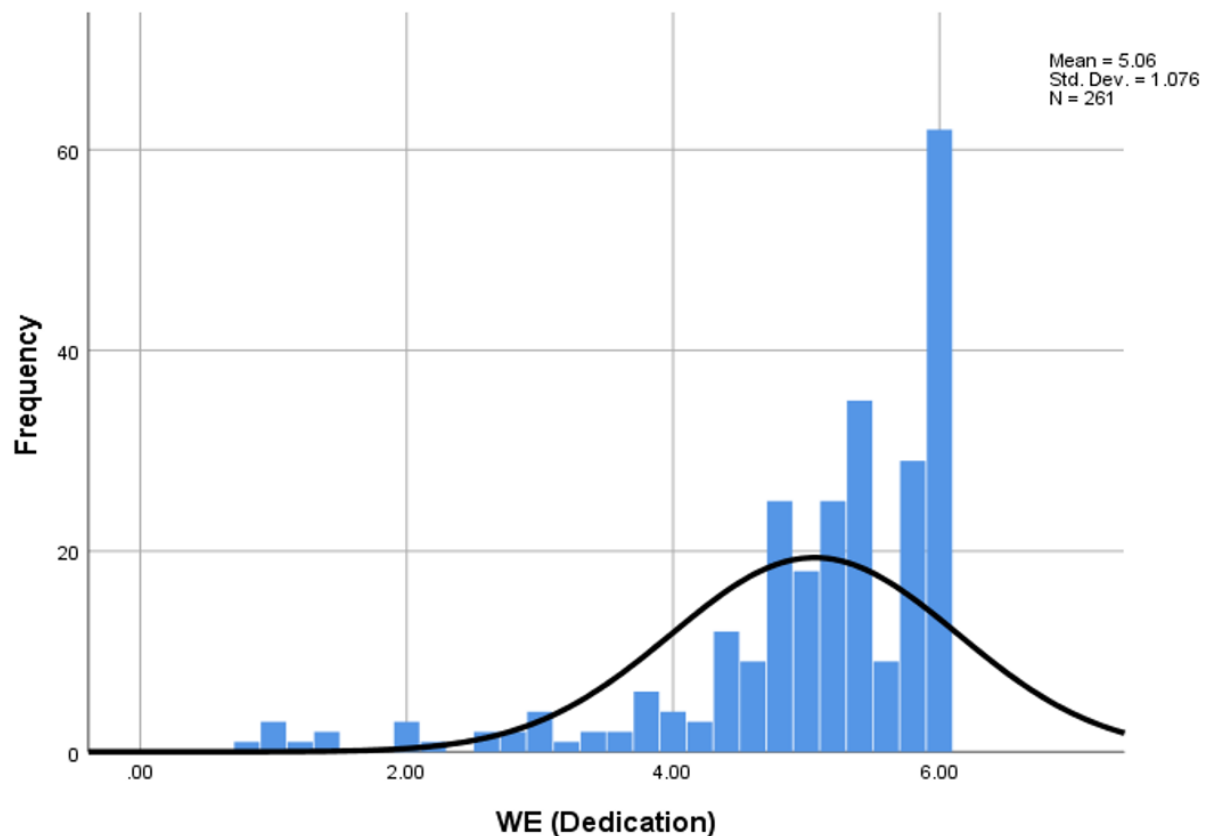


Figure 6.6:
Graphical representation of Dedication mean and SD

Figure 6.6 above shows the mean= 5.06 and SD= 1.076, indicating that the data distribution was not concentrated to the centre. This was confirmed by the skewness= -1.903 and Kurtosis= 3.944, indicating skewness to the right and heavy-tailed to the left. This may also be an indication of higher levels of dedication among respondents.

The lower score, particularly on job challenges, may be an indication of lack of job resources and lack of organisational support, especially relevant to those working in the public sector. The result may also either be a sign of boredom at work, or of respondents' lack of proficiency in what they do.

Dedication is delineated as characterised by a sense of significance, enthusiasm, inspiration, pride, commitment, volition and responsibility (Klein *et al.*, 2012; Schaufeli & Bakker, 2004).

The sub-dimension of dedication was assessed by five items that refer to deriving a sense of significance from one's work, feeling enthusiastic and proud about one's job, and feeling inspired and challenged by it.

6.3.2.3 Vigour

Schaufeli and Bakker (2004) define vigour as high levels of energy and mental resilience while working, the willingness to invest effort in one's work and persistence, also in the face of difficulties. Vigour and dedication are the direct positive opposites of exhaustion and cynicism, respectively (Schaufeli & Bakker, 2004).

In this data set, vigour obtained the lowest percentage. In this study, vigour was assessed by five items that refer to high levels of energy and resilience, the willingness to invest effort, not being easily fatigued, and persistence in the face of difficulties. The highest percentage of respondents who had the feelings daily, reacted to the following statements: "At my work I always persevere, even when things do not go well" - 67%%; "I can continue working for very long periods at a time" - 58%; "When I get up in the morning I feel like going to work" - 54%"; and "At my job, I feel strong and vigorous" - 53%. The lowest percentage in this sub-dimension was in relation to "feeling bursting with energy" - 35% and "physical and mental resilience" - 41%.

The ability to persevere despite difficult circumstances, and to work long periods at a time may be an indication of job demands where nurses work long shifts due to poor staffing levels. They also have to be strong out of necessity to survive the work pressure. This is collaborated by the low score in resilience and lower percentage of respondents indicating that they feel resilient daily.

Physically nurses perform tasks that expose them to ill health, like musculoskeletal disorders and infectious diseases (Heiden *et al.*, 2013; Cho *et al.*, 2014). As a result, individuals may be less likely to be engaged if they are performing tasks that they perceive as detrimental to their own individual health.

Working long hours may be an indication of the respondents' duty requirements, and also their efforts to earn more money by taking on extra shifts due to the shortage of nurses, as previously indicated, and not necessarily out of the desire to be on duty.

Figure 6.7 below provides a graphical illustration of the data distribution for the work engagement sub-dimension of vigour.

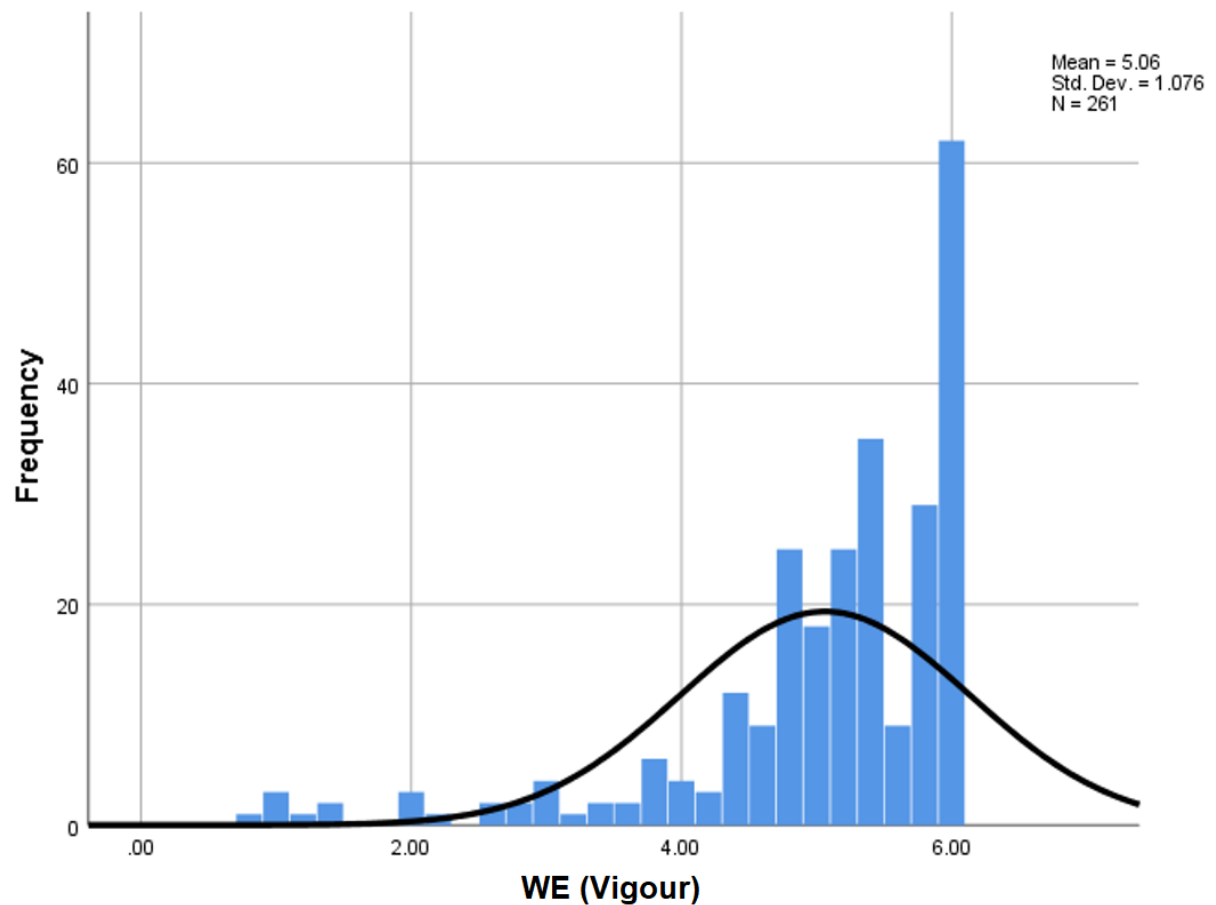


Figure 6.7:
Graphical representation of Vigour mean and SD

Figure 6.7 above shows the mean= 4.66 and SD= 1.103, indicating that the data distribution was not concentrated to the centre but spiked to the right. This was confirmed by the skewness= -1.237 and kurtosis= 1.524, indicating skewness to the right and heavy-tailed to the left. This may also be an indication of higher levels of vigour among respondents.

Figure 6.8 below provides a graphical illustration of the data distribution for the total work engagement.

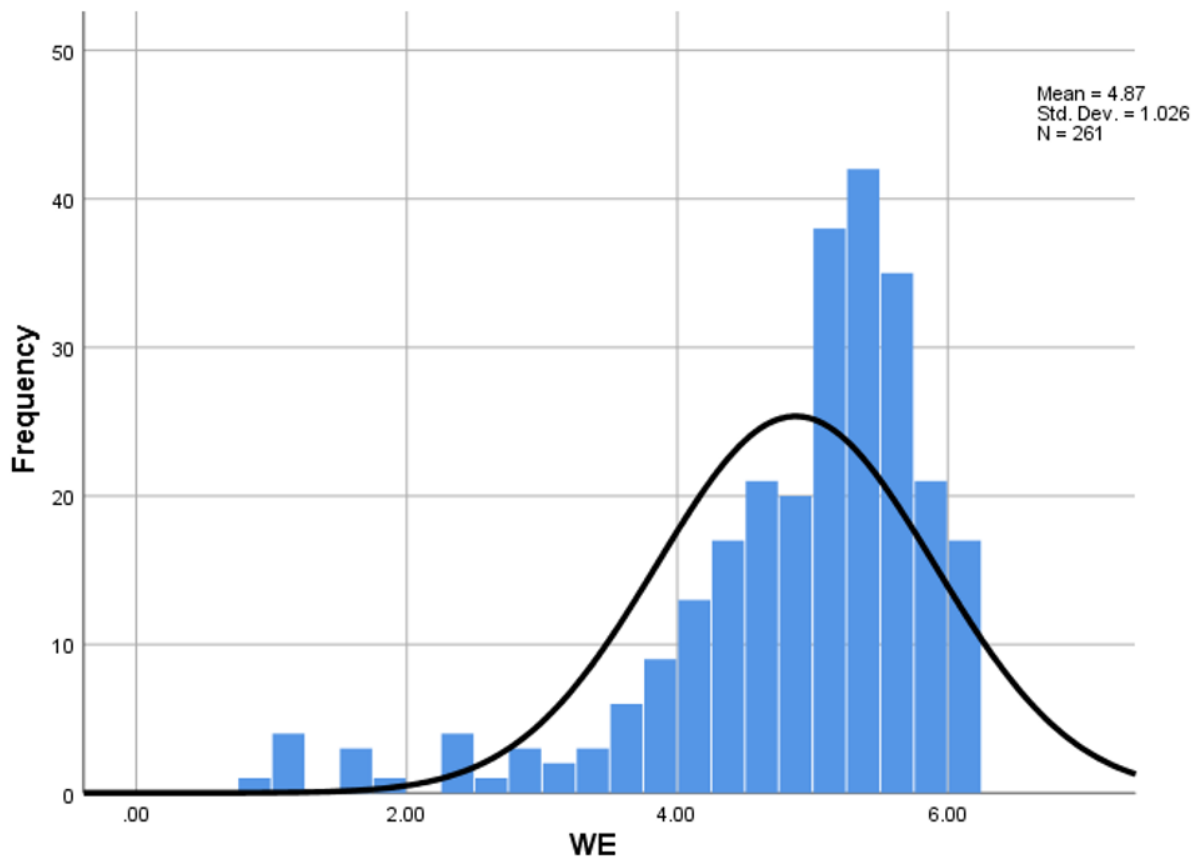


Figure 6.8:
Graphical representation of total work engagement mean and SD

Figure 6.8 above shows the mean= 4.74 and SD= 0.989, indicating that the data distribution was not concentrated to the centre but spiked to the right. This was confirmed by the skewness= -1.460 and kurtosis= 2.507, indicating skewness to the right and heavy-tailed to the left. This may also be an indication of higher levels of vigour among respondents.

The literature suggested that when people are dedicated and feel vigorous in their work role, they are more likely to be absorbed. They appear to be more committed to their work, despite the work challenges, and are more energetic, as well as being enthusiastic and proud. Individuals who are vigorous and enthusiastic tend to be engaged in their work role (Schaufeli *et al.*, 2004).

In conclusion, regarding the three work engagement sub-dimensions, the average for dedication has the highest percentage, followed by vigour and then absorption. This means that this sample of nurses tended to be more dedicated, a bit less vigorous and less absorbed (Stander & Rothmann, 2010; Steffens *et al.*, 2014) which occurs when individuals are engaged in performing to solve a problem (Green Jr. *et al.*, 2017).

The results of work engagement in this research indicate that despite the work challenges nurses experience, they are still proud of their work, consider it meaningful, and it therefore is consistent with the interpretations and understanding of work engagement.

6.3.3 Descriptive analyses for burnout

To evaluate the measures of dispersion for burnout, descriptive statistics were computed in the form of arithmetic means and standard deviations, also distinguishing between the three sub-dimensions of exhaustion, cynicism/ depersonalisation and professional inefficacy. The standard deviation provides an impression of the distribution of scores around the mean. A narrow range between the lowest and the highest scores indicates that scores cluster closely to the average data (Leech *et al.*, 2011).

The burnout indicators were measured along two ordinal (Cohen *et al.*, 2013) components of frequency and intensity (Maslach *et al.*, 2001). The strength of the relationship is measured by the absolute values of two components measured on an ordinal categorical scale and were transformed into a single measure as cross-products of frequency and intensity as suggested by MBI developers.

Frequency of feelings was measured on a 6-point Likert scale as follows: A few times a year, monthly, a few times a month, every week, a few times a week and every day. The strength was measured on 4-point Likert scale as follows: very mild, barely noticeable, moderate, and very strong/ major (Maslach *et al.*, 2001). The transformed indicators were on a continuous scale and were therefore analysed with the mean as the measure of central tendency, and the standard deviation as a measure of dispersion. Table 6.8 below shows the results.

Table 6.8:
Descriptive results for burnout (n=261)

	Mean	Std. Deviation	Analysis N
I feel emotionally drained from my work (MBIEEF11)	8.84	6.932	261
I feel used up at the end of my work day (MBIEEF12)	10.51	7.393	261
I feel fatigued when I get up in the morning and have to face another day on the job (MBIEEF13)	8.93	7.077	261
Working with people all day is really a strain for me (MBIEEF14)	8.48	6.917	261
I feel burned out from my work (MBIEEF15)	8.30	6.975	261
I feel frustrated by my job (MBIEEF16)	7.34	6.476	261
I feel I am working too hard on my job (MBIEEF17)	10.77	7.639	261
Working with people directly puts too much stress on me (MBIEEF18)	8.09	6.848	261
I feel like I am at the end of my rope (MBIEEF19)	6.16	5.622	261
I can easily understand how my recipients feel about things (MBIP/eff FI1)	12.01	7.708	261
I deal effectively with the problem of my recipients (MBIP/eff FI2)	14.02	7.732	261
I feel I am positively influencing other peoples' lives through my work (MBIP/eff FI3)	12.73	6.358	261
I feel very energetic (MBIP/eff FI4)	14.48	7.630	261
I can easily create a relaxed atmosphere with my recipients (MBIP/eff FI5)	14.90	7.510	261
I feel exhilarated after working closely with my recipients (MBIP/eff FI6)	12.76	7.660	261
I have accomplished many worthwhile things in this job (MBIP/effFI7)	13.31	7.498	261
In my work I deal with emotional problems very effectively (MBIP/effFI8)	12.28	7.672	261

	Mean	Std. Deviation	Analysis N
I feel I treat some recipients as if they were impersonal objects (MBICy/DFI1)	4.62	4.195	261
I have become more callous (heartless or uncaring) toward people since I took this job (MBIDFI2)	3.77	3.460	261
I worry that this job is hardening me emotionally (MBICy/DFI3)	5.24	4.785	261
I do not really care what happens to some recipients (MBICy/DFI4)	3.85	3.453	261
I feel recipients blame me for some of their problems (MBICy/DFI5)	5.16	4.991	261
I feel similar to my recipients in many ways (MBIIVFI1)	8.82	6.616	261
I feel personally involved with my recipients' problems (MBIIVFI2)	10.01	7.549	261
I feel uncomfortable about the way I have treated some recipients (MBIIVFI3)	7.51	6.728	261

6.3.3.1 Emotional exhaustion

Emotional exhaustion (EE) was measured by nine (9) items on a 6-point frequency scale and a 4-point intensity scale, whose mean scores and standard deviation were mean=7.51 and SD=4.571.

The emotional exhaustion sub-dimension was explained by statements like “I feel used up at the end of my work day”, “I feel I am working too hard on my job”, and “I feel like I am at the end of my rope”. The results indicate that most respondents felt used up at the end of the day and are working too hard in their jobs more frequently, and the feelings are intense. The feelings may be attributed to an increased workload as a result of poor staffing and lack of job resources, especially for respondents working in government-owned hospitals (Thomas, Kohli, & Choi, 2014).

Exhaustion was conceptualised as the opposite energy to vigour and was characterised by feelings of depletion and irritation as a result of work pressure (Leiter & Maslach, 2005). Kim and Park, (2015) explain emotional exhaustion as an attitude of employees’ internal susceptibility or defencelessness in which they can no longer perform their tasks effectively as a result of stress over a period of time.

In a hospital setting, if working relations between the employees, patients, organisational system and the other stakeholders become less rewarding, the depletion of emotional and physical resources culminate in negative attitudes and behaviour towards patients (Ogunbamila, 2013).

Figure 6.9 below provides a graphical illustration of the data distribution for the burnout sub-dimension of exhaustion.

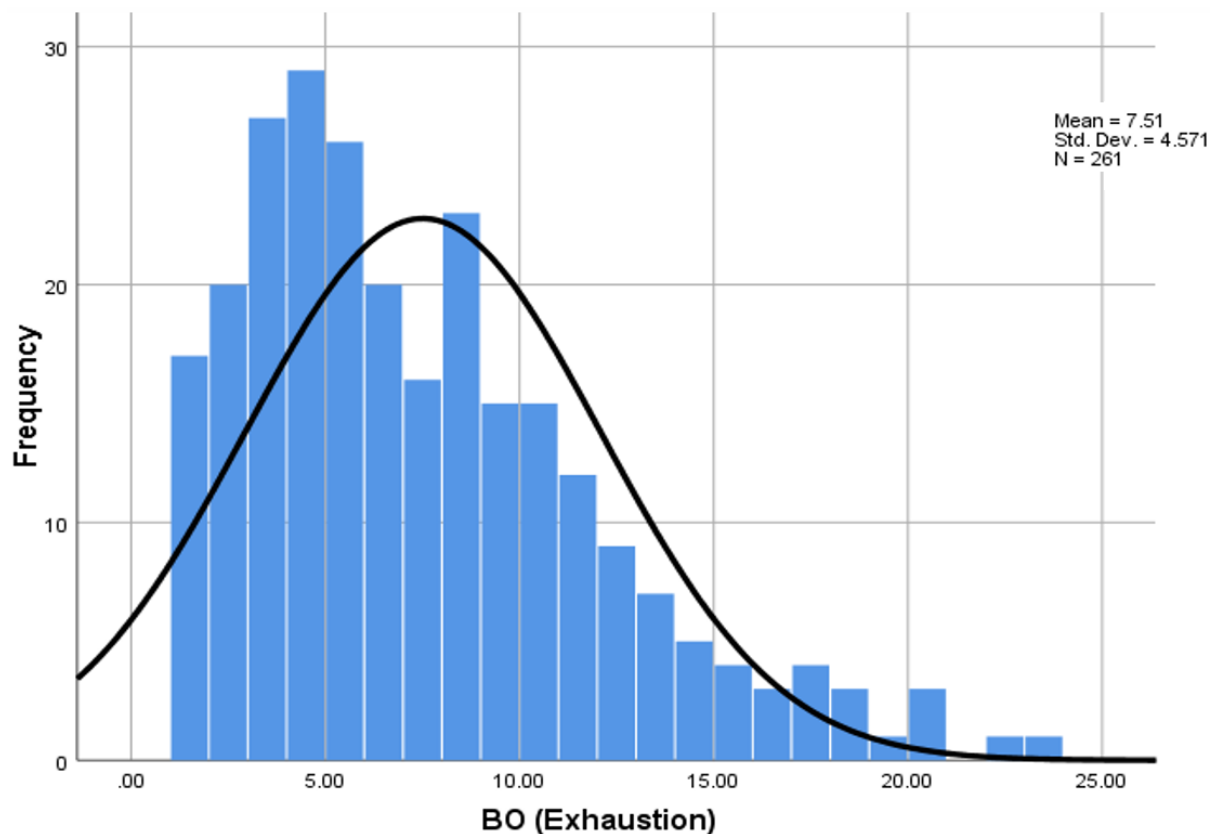


Figure 6.9:
Graphical representation of Exhaustion mean and SD

Figure 6.9 above shows the mean= 7.51 and SD= 4.571, indicating that the data distribution was not concentrated to the centre but spiked to the left. This was confirmed by the skewness= 0.151 and Kurtosis= 0.667, indicating skewness to the left and heavy-tailed to the right. This may also be an indication of higher levels of exhaustion among respondents.

In this study, emotional exhaustion had medium to high mean scores and standard deviation if compared to studies by Chou *et al.* (2012), Leiter and Maslach (2005) and Van Bogaert *et al.* (2014). This could be an indication of medium to high levels of emotional exhaustion among respondents. Since data were collected towards the end of the year, when there are many ongoing activities in organisations and society, it could also have contributed to the high levels of exhaustion among nurses.

6.3.3.2 Cynicism/ Depersonalisation

For the sub-dimension of cynicism/ depersonalisation (Cy/De), the mean score and standard deviation were (M=3.6408 SD = 2.89297). For cynicism/ depersonalisation, Maslach *et al.* (2001) illustrate it to represent the interpersonal context dimension of negative, callous, or excessively detached responses to various aspects of the job.

The item that best describes this is “I worry that this job is hardening me emotionally”, which indicates the respondents’ concern that work experiences might bring about personal changes from positive to negative attitudes towards work. Cyn/De is an attempt to create distance between the service provider and recipient, by ignoring the qualities that make individuals unique and pleasing to people (Xu & Cooper-Thomas, 2011).

Figure 6.10 below provides a graphical illustration of the data distribution for the burnout sub-dimension of Cynicism/Depersonalisation.

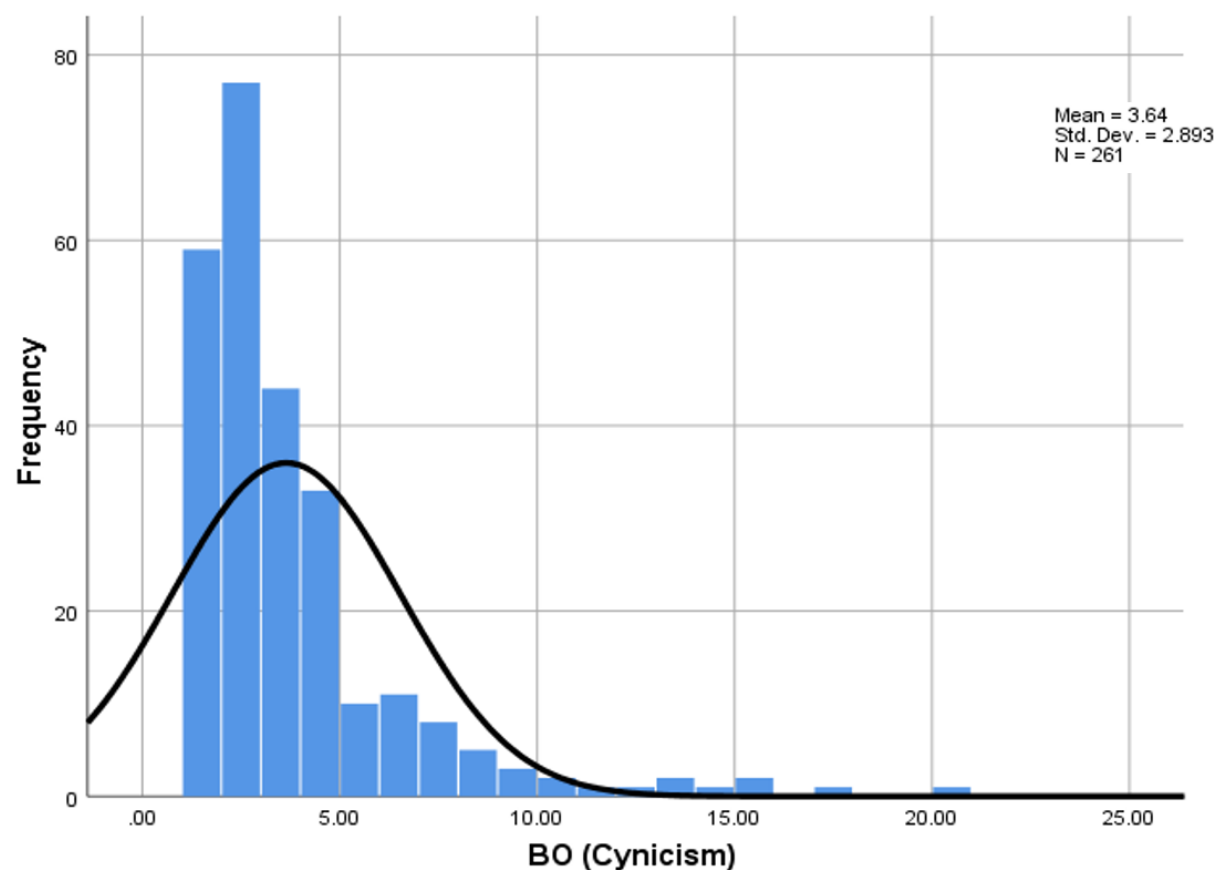


Figure 6.10:
Graphical representation of Cynicism/Depersonalisation mean and SD

Figure 6.10 above shows the mean= 3.64 and SD= 2.893, indicating that the data distribution was not concentrated to the centre but spiked to the right. This was confirmed by the skewness= 2.501 and Kurtosis= 8.206, indicating skewness to the right and light-tailed to the right. This may also be an indication of higher levels of cynicism/depersonalisation among respondents.

A study by Kasalak and Aksu (2014), conducted among academics, found that cynicism/depersonalisation was negatively correlated to organisational identification, commitment and citizenship, whereas it was positively correlated with the intention of turnover and the perception of lack of organisation commitment/unfaithfulness of employees.

The mean score for cynicism/depersonalisation indicates that nurses were in the moderate to low levels of cynicism/depersonalisation category (Hamaideh, 2011). This means that some nurses reported moderate to low levels of cynicism/depersonalisation that may have resulted from the heavy workload and ever-increasing job demands, especially from year-end activities.

6.3.3.3 Professional efficacy

The professional efficacy (Prof/eff) sub-dimension was measured by eight (8) items on frequency six Likert scale and four intensity scale, whose mean scores and standard deviation were $M=11.9852$ and $SD = 6.68886$. The sub-dimension was defined by statements like “I can easily create a relaxed atmosphere with my recipients”, “I can easily understand how my recipients feel about things” and “I deal effectively with the problem of my recipients”. The results indicate that respondents are able to create a relaxed atmosphere for clients, and therefore there is a high level of professional efficacy among nurses.

Professional efficacy is described in Bandura's, (1977) personality theory as the belief a person has about their ability to carry out the behaviours needed to reach certain desired outcomes (Swartz *et al.*, 2016 pp. 131-132).

The professional efficacy items are stated positively in the Maslach Burnout Index, while the items for both emotional exhaustion and cynicism/depersonalisation are negative statements (Schaufeli & Bakker 2003). On the contrary, professional inefficacy is therefore present when there is evidence of a lack of belief in their own abilities to reach specific professional goals. There is a direct relationship between feelings of competency (efficacy) and the successful accomplishment of one's work goals (Van Bogaert *et al.*, 2014).

Figure 6.11 below provides a graphical illustration of the data distribution for the burnout sub-dimension of Professional efficacy.

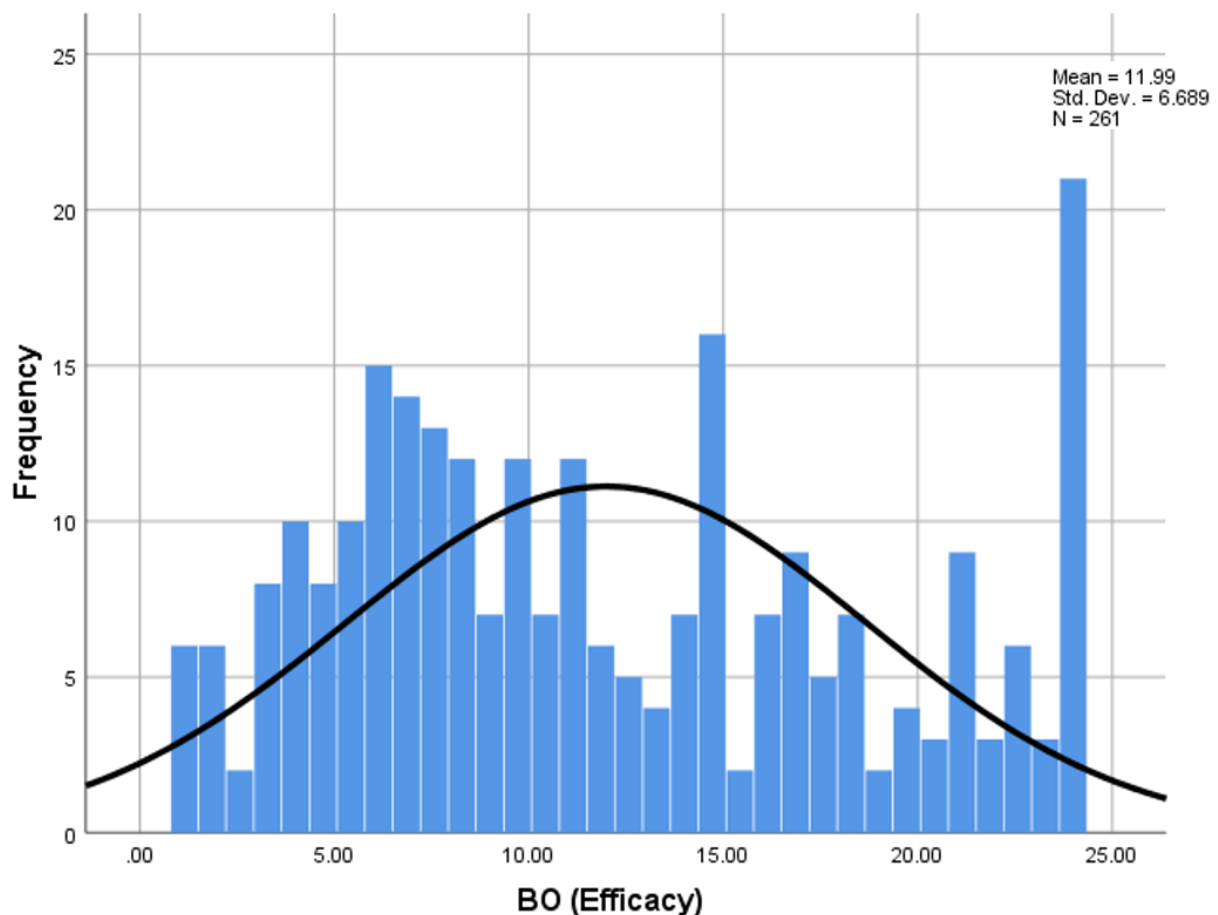


Figure 6.11:
Graphical representation of Professional efficacy mean and SD

Figure 6.11 above shows the mean= 11.9852 and SD= 6.689, indicating that the data distribution was not concentrated to the centre but more widespread, with different spikes. The skewness= 0.359 and Kurtosis= -1.012, indicated that the data is approximately symmetric. This may also be an indication of higher levels of professional efficacy across the different groups of respondents.

The larger proportion of respondents was above 40 years of age, and this gave them time to gain mastery and proficiency in performing their tasks. This may positively affect the nurses' ability to cope with work challenges (Buitendach & Mohammed, 2011) and feeling in control of their resources amid heavy workloads, which is in line and supportive of research by Van der Colff and Rothmann (2014). Since the items related to professional efficacy are positive, the result may also indicate nurses' positive effect on their jobs.

In summary, professional efficacy had the highest mean score ($M= 11.9852$) if compared to the two other sub-dimensions. This was an indication that nurses in this

study felt confident that they have what it takes to achieve their job goals, despite challenges. Additionally, the respondents indicated role meaningfulness in the engagement score that enhanced professional efficacy in line with the empirical studies of Van Bogaert *et al.*, (2013), and Van der Colff and Rothmann (2014).

Emotional exhaustion had the second highest mean score ($M = 7.5092$) with the respondents exhibiting feelings of low to medium level of exhaustion that may have been caused by heavy workloads and lack of job resources (Kim & Park, 2015; Thomas *et al.*, 2014).

In terms of cynicism/ depersonalisation, the results suggest that although respondents experienced challenges in their jobs, they exhibited a low to medium level of cyn/de that may be attributed to a lack of organisational commitment, while maintaining some degree of professionalism (Kasalak & Aksu, 2014).

6.3.4 Summary of construct descriptives

The summary results of constructs' mean, standard deviations, skewness and kurtosis are indicated in Table 6.9 below

Table 6.9:
Summary of Mean, SD, Skewness and Kurtosis

Constructs	Mean	Std. Deviation	Median	Skewness	Kurtosis
WCO (Job/calling)	0.67	0.185	0.67	-0.568	0.084
WE (Absorption)	4.50	1.191	4.83	-1.005	0.598
WE (Dedication)	5.06	1.076	5.40	-1.903	3.944
WE (Vigour)	4.66	1.103	5.00	-1.237	1.524
WE (Total)	4.74	0.989	5.01	-1.460	2.507
BO (Emotional exhaustion)	7.51	4.571	6.70	0.958	0.667
BO (Professional efficacy)	11.99	6.689	10.86	0.359	-1.012
BO (Cynicism/ depersonalisation)	3.64	2.893	2.80	2.501	8.206

Empirical evidence from the formative studies (Wrzesniewski *et al.*, 1997) indicated similar results. The mean score for dedication was 5.06, for vigour it was 4.66, and for absorption 4.50. The standard deviation was highest for absorption (1.191), followed by vigour (1.103) and dedication (1.076). This indicates that the responses for

dedication were closer to the average than the range for absorption and vigour. This indicates that respondents were on average more dedicated at the workplace than they were absorbed or felt vigour by their work.

The mean score for professional efficacy was 11.99, which was the highest score in all the sub-dimensions, while the mean score for emotional exhaustion was 7.51 and cynicism/depersonalisation was 3.64.

The standard deviation for professional efficacy was 6.689, emotional exhaustion 4.571 and cynicism/depersonalisation 2.893. This indicates that the respondents were more confident in performing their tasks, and they could therefore more confidently and effectively handle their patients, and they were aware of their abilities. It also indicates that respondents felt some degree of exhaustion as a result of job performance, and were developing some level of cynicism/depersonalisation towards their service recipients. These feelings could have resulted from work overload, lack of job resources, and a poor work environment.

In regards to data skewness, the values for job/calling -0.568 and kurtosis 0.084 indicates a slight skewness to the left (negative) with data concentration to the right but it falls within the normal range of -1 and +1 recommended for these coefficients (Hair *et al.*, (2014).

For absorption, the data are slightly skewed to the left -1.005 and kurtosis 0.598, but it falls within the normal range of -1 and +1, as recommended by Hair *et al.* (2014).

For dedication, the skewness value of -1.903 and kurtosis of 3.944 indicate that data were skewed to the left (negative), with a higher concentration of scores to the right tail of the data.

For emotional exhaustion, the skewness values are 0.958 and kurtosis 0.667, which indicate that the data are slightly positively skewed with more concentration to the left but also falling within the recommended range of -1 to +1 (Hair *et al.*, 2014).

For professional efficacy, the skewness values are 0.359 and kurtosis -1.012, indicating skewness falling into the normal range of -1 to +1 with a slight concentration of data to the left and little observable data to the left (Hair *et al.*, 2014).

The cynicism/ depersonalisation skewness values are 2.501 and kurtosis 8.206, which indicates data skewness to the right with more concentration to the left and little observable data to the right.

From the descriptive analysis of this data set, age, position and work years influenced the respondents' perception of work calling orientation. This is in line with studies on registered nurses in South Africa (Van der Colff & Rothmann, 2014) in which age, experience and position, among other factors, influenced the employees' perception of their work.

The scores for work engagement indicated that dedication had the highest percentage, followed by absorption, and then vigour. This implied that the respondents were more dedicated in their work than they were absorbed or showed vigour in their work. In this study, most respondents were more than 45 years old, and had 20 or more years of experience, which may have a positive influence on their level of engagement. High levels of dedication and absorption may be an indication of job crafting for better work outcomes over the years of service (Diedericks & Rothman, 2013, Van der Colff & Rothmann, 2014).

For the burnout construct, the highest mean score was in the sub-dimension of Prof/eff, in which respondents recorded their ability to focus and achieve their job goals despite challenges (Buitendach & Mohammed, 2011) and feeling in control of their resources amid heavy workloads (Van der Colff & Rothmann, 2014). The low levels of exhaustion are an indication of strained coping mechanisms that may have resulted from lack of resources in highly demanding work environments. The respondents may also have scored low levels of cynicism/depersonalisation as a result of the job challenges and lack of organisational commitment (Kasalak & Aksu, 2014).

6.4 GROUP DIFFERENCES

Mann-Whitney U and Kruskal-Wallis H tests (for non-parametric data) (Pallant, 2010) were conducted to identify significant differences between the demographic characteristics of the sample.

The results presented in this section address Research aim 5 and Hypothesis 1.

6.4.1 Gender

A Mann-Whitney U test was used to test for differences between gender groups, and the results are tabulated in Table 6.10.

Table 6.10:
Gender group differences – Mean ranks

Construct	Female n=229	Male n=32	Mann-Whitney U	P-value
WCO (Job/calling)	130.16	136.98	3472.5	0.630
WE (Absorption)	129.31	143.13	3276.0	0.331
WE (Dedication)	128.44	149.30	3078.5	0.139
WE (Vigour)	130.07	137.63	3452.0	0.595
WE (Total)	129.44	142.19	3306.0	0.371
BO (Emotional exhaustion)	132.18	122.53	3393.0	0.498
BO (Professional efficacy)	129.24	143.56	3262.0	0.315
BO (Cynicism/ depersonalisation)	130.70	133.14	3595.5	0.864

The results displayed in Table 6.10 show significant levels for all the constructs, above 0.05. There is therefore no statistical evidence to support the hypothesis that significant differences in levels of work calling orientation, work engagement and burnout exist between gender groups of nurses in the Khomas Region of Namibia.

6.4.2 Age

The demographic variable of 'age' was divided into four groups, and a Kruskal-Wallis test was done to identify group differences.

The results are tabulated in Table 6.11.

Table 6.11:
Age group differences – Mean ranks

Construct	Age	n	Mean rank	Kruskal-Wallis	Degrees of freedom	P-value
WCO (Job/calling)	30 and below	57	136.74	1.894	3	0.595
	31-40	46	116.99			
	41-50	56	131.28			
	51 and above	99	130.14			
WE (Absorption)	30 and below	57	132.85	4.449	3	0.217
	31-40	46	110.87			
	41-50	56	126.09			
	51 and above	99	138.16			
WE (Dedication)	30 and below	57	124.15	5.407	3	0.144
	31-40	46	109.83			
	41-50	56	134.59			
	51 and above	99	138.84			
WE (Vigour)	30 and below	57	130.05	1.092	3	0.779
	31-40	46	119.60			
	41-50	56	134.26			
	51 and above	99	131.09			
WE (Total)	30 and below	57	128.40	3.720	3	0.293
	31-40	46	111.97			
	41-50	56	130.79			
	51 and above	99	137.55			
BO (Emotional exhaustion)	30 and below	57	115.05	3.170	3	0.366
	31-40	46	127.28			
	41-50	56	135.50			
	51 and above	99	135.45			
BO (Professional efficacy)	30 and below	57	151.32	13.631	3	0.003
	31-40	46	136.13			
	41-50	56	138.38			
	51 and above	99	108.83			
BO (Cynicism/ depersonalisation)	30 and below	57	139.78	4.210	3	0.240
	31-40	46	125.83			
	41-50	56	113.48			
	51 and above	99	134.35			

The results displayed in Table 6.11 show significant levels for all constructs, except professional efficacy ($p=0.003$), being above 0.05. There is therefore no statistical evidence to support the hypothesis that significant differences in the levels of these construct measures exist between age groups of nurses in the Khomas Region of Namibia.

With regard to professional efficacy, those nurses in the age group 30 years and younger reported higher median levels (median=14.71), compared to those in the age group 51 years and older (median=8.29). The two middle-age groups reported medians of 11.50 (31-40 years) and 12.21 (41-50 years), respectively.

The age group differences may be an indication that respondents are aware of opportunities for professional progression that they could take advantage of, and the reward mechanisms have been made clear to all (Van Bogaert *et al.*, 2014).

6.4.3 Ethnicity

The demographic variable of 'race' was divided into three groups: Black, Coloured and White respondents.

The Kruskal-Wallis test was done to identify race group differences. The significance level of the p-value was set at the threshold of .01 to .05, and the results are reflected in Table 6.12 below.

Table 6.12:
Results of Kruskal-Wallis Test for Race/ Ethnicity in terms of the constructs and sub-
dimensions

	Race/ Ethnicity	n	Mean Rank	Mean	SD	Kruskal- Wallis	DF	P- Value
Job/Calling	Black	195	130.25	0.68	0.183	10.348	2	0.006
	Coloured	33	119.35					
	White	20	76.95					
Absorption	Black	195	127.54	4.53	1.178	4.044	2	0.132
	Coloured	33	125.20					
	White	20	93.75					
Dedication	Black	195	126.62	5.08	1.087	4.550	2	0.103
	Coloured	33	131.35					
	White	20	92.50					
Vigour	Black	195	126.62	5.08	1.087	4.550	2	0.103
	Coloured	33	131.35					
	White	20	92.50					
Total WE	Black	195	127.56	4.90	1.032	5.775	2	0.056
	Coloured	33	128.80					
	White	20	87.58					
Exhaustion	Black	195	126.93	7.40	4.613	1.214	2	0.545
	Coloured	33	118.74					
	White	20	110.35					
Prof/eff	Black	195	130.35	12.13	6.729	6.703	2	0.035
	Coloured	33	101.80					
	White	20	102.03					
Cyn/Dep	Black	195	122.96	3.59	2.830	2.972	2	0.226
	Coloured	33	117.92					
	White	20	150.33					

The results displayed in Table 6.12 show significant differences between ethnic groups in terms of the levels of job/calling ($p=0.006$) and professional efficacy ($p=0.035$). The

median level for job/calling (0.73) was highest amongst Blacks (median=0.73) compared to Coloureds (median=0.67) and Whites (median=0.53). The average Black and Coloured nurse therefore tended to be more inclined to calling orientation, while White nurses showed tendencies for both job and calling orientation.

This may be an indication of the respondents' alignment to the job/calling orientation leading to improved work engagement and a perception of higher professional efficacy (Duffy *et al.*, 2012; Lisjak & Lee, 2014).

The respondents, in general, also consisted of nurses with higher qualifications and more experience. Most of them have had the opportunity to change careers or craft their jobs to fit their values and abilities. They are therefore aware of opportunities for professional progression, and would therefore be more engaged in their jobs (Van Bogaert *et al.*, 2014).

With regard to professional efficacy, Black nurses reported higher median levels (median=11.71) compared to Coloured (median=11.71) and White (median=8.86) nurses.

6.4.4 Qualification levels

The demographic variable of 'qualification level' was divided into four groups, and a Kruskal-Wallis test was done to identify group differences.

The results are tabulated in Table 6.13.

Table 6.13:
Qualification level differences – Mean ranks

Construct	Qualification level	n	Mean rank	Kruskal-Wallis	Degrees of freedom	P-value
WCO (Job/calling)	Certificate	63	135.87	5.175	3	0.159
	Diploma (2 yrs)	108	124.47			
	Diploma (3 yrs)	50	106.25			
	Degree and higher	27	131.89			
WE (Absorption)	Certificate	63	124.25	0.825	3	0.843
	Diploma (2 yrs)	108	125.14			
	Diploma (3 yrs)	50	118.42			
	Degree and higher	27	133.80			
WE (Dedication)	Certificate	63	122.92	3.158	3	0.368
	Diploma (2 yrs)	108	131.77			
	Diploma (3 yrs)	50	110.33			
	Degree and higher	27	125.35			
WE (Vigour)	Certificate	63	118.21	2.691	3	0.442
	Diploma (2 yrs)	108	131.58			
	Diploma (3 yrs)	50	114.35			
	Degree and higher	27	129.67			
WE (Total)	Certificate	63	119.84	2.033	3	0.566
	Diploma (2 yrs)	108	130.94			
	Diploma (3 yrs)	50	115.08			
	Degree and higher	27	127.06			
BO (Emotional exhaustion)	Certificate	63	124.83	4.343	3	0.227
	Diploma (2 yrs)	108	119.85			
	Diploma (3 yrs)	50	141.67			
	Degree and higher	27	110.54			
BO (Professional efficacy)	Certificate	63	118.48	2.623	3	0.453
	Diploma (2 yrs)	108	120.82			
	Diploma (3 yrs)	50	130.94			
	Degree and higher	27	141.35			

Construct	Qualification level	n	Mean rank	Kruskal-Wallis	Degrees of freedom	P-value
BO (Cynicism/ depersonalisation)	Certificate	63	126.69	6.812	3	0.078
	Diploma (2 yrs)	108	116.59			
	Diploma (3 yrs)	50	145.99			
	Degree and higher	27	111.24			

The results displayed in Table 6.13 show significant levels for all the constructs above 0.05. The hypothesis for group differences can, therefore, not be rejected, indicating that levels across groups do not differ significantly. This can be as a result of clarity of the organisational policies and procedures that are aligned with individual values and practices. With regards to cynicism/ depersonalisation, the respondents may have withheld their real feelings about their work, organisation and care recipients to conform to cultural expectations

6.4.5 Length of service

The demographic variable of 'length of service' was divided into seven groups, and a Kruskal-Wallis test was done to identify group differences.

The results are tabulated in Table 6.14.

Table 6.14:
Length of service – Mean ranks

Construct	Length of service	n	Mean rank	Kruskal-Wallis	Degrees of freedom	P-value
WCO (Job/calling)	5 yrs or less	52	134.73	10.772	6	0.096
	6-10 yrs	38	125.26			
	11-20 yrs	35	112.04			
	21-25 yrs	36	117.82			
	26-30 yrs	36	136.68			
	31-35 yrs	32	159.13			
	36 yrs and longer	27	109.43			
WE (Absorption)	5 yrs or less	52	126.06	14.367	6	0.026
	6-10 yrs	38	122.08			
	11-20 yrs	35	119.24			
	21-25 yrs	36	97.19			
	26-30 yrs	36	155.28			
	31-35 yrs	32	142.55			
	36 yrs and longer	27	143.63			
WE (Dedication)	5 yrs or less	52	113.17	13.239	6	0.039
	6-10 yrs	38	121.26			
	11-20 yrs	35	138.14			
	21-25 yrs	36	110.61			
	26-30 yrs	36	156.28			
	31-35 yrs	32	148.00			
	36 yrs and longer	27	119.41			
WE (Vigour)	5 yrs or less	52	123.24	5.941	6	0.430
	6-10 yrs	38	130.25			
	11-20 yrs	35	135.20			
	21-25 yrs	36	105.07			
	26-30 yrs	36	131.36			
	31-35 yrs	32	143.52			
	36 yrs and longer	27	137.11			
WE (Total)	5 yrs or less	52	121.58	12.718	6	0.048
	6-10 yrs	38	123.25			
	11-20 yrs	35	129.36			
	21-25 yrs	36	97.57			

Construct	Length of service	n	Mean rank	Kruskal-Wallis	Degrees of freedom	P-value
	26-30 yrs	36	151.88			
	31-35 yrs	32	146.14			
	36 yrs and longer	27	137.28			
BO (Emotional exhaustion)	5 yrs or less	52	124.39	15.035	6	0.020
	6-10 yrs	38	109.24			
	11-20 yrs	35	140.74			
	21-25 yrs	36	146.06			
	26-30 yrs	36	115.54			
	31-35 yrs	32	109.67			
	36 yrs and longer	27	163.83			
BO (Professional efficacy)	5 yrs or less	52	138.80	12.758	6	0.047
	6-10 yrs	38	149.14			
	11-20 yrs	35	147.43			
	21-25 yrs	36	109.57			
	26-30 yrs	36	105.99			
	31-35 yrs	32	117.72			
	36 yrs and longer	27	123.11			
BO (Cynicism/ depersonalisation)	5 yrs or less	52	147.24	6.932	6	0.327
	6-10 yrs	38	111.82			
	11-20 yrs	35	121.81			
	21-25 yrs	36	137.96			
	26-30 yrs	36	117.79			
	31-35 yrs	32	128.02			
	36 yrs and longer	27	126.80			

Significant differences were reported for absorption ($p=0.026$), dedication ($p=0.039$), total work engagement ($p=0.048$), emotional exhaustion ($p=0.020$) and professional efficacy ($p=0.047$). For all these constructs, no observed linear trends were evident.

In summary, there were work years (tenure) group differences observed with regards to absorption, dedication, vigour, total work engagement and professional efficacy (Jenaro *et al.*, 2011; Van Mol *et al.*, 2015). This may be an indication that the nurses in this data set are absorbed and dedicated to their work. The fact is that most of the respondents (more than 50%) had work service of more than 20 years. They have

therefore gained competency in their job and are familiar with work values and practices that are aligned with their individual values and practices. They are engaged and feel vigorous in their work, which has contributed to their long service, professional progression and the quality of health care they deliver (Green Jr. *et al.*, 2017).

However, no tenure group differences were observed with regards to job/calling (though close to threshold) and cynicism/depersonalisation. This may indicate that nurses have crafted their jobs to align with their personal gifts, values and practices that enable them to remain in the profession for long periods of time (Diedericks & Rothman, 2013, Van der Colff & Rothmann, 2014). They also have identified themselves with the profession, thereby reducing the incidence of being cynical and depersonalised.

The significant level of exhaustion may be as a result of poor staffing, as discussed, a poor work environment and lack of the job resources needed for effective work performance (McQuide *et al.*, 2013; Ogunbamila, 2013; Thomas *et al.*, 2014).

6.4.6 Professional position

The demographic variable of 'professional position' was divided into three groups, and a Kruskal-Wallis test was done to identify group differences.

The results are tabulated in Table 6.15.

Table 6.15:
Professional position group differences – Mean ranks

Construct	Professional position	n	Mean rank	Kruskal-Wallis	Degrees of freedom	P-value
WCO (Job/calling)	Enrolled nurse	70	147.12	5.586	2	0.061
	Registered nurse	152	125.56			
	Nurse manager	37	115.86			
WE (Absorption)	Enrolled nurse	70	134.33	1.216	2	0.544
	Registered nurse	152	125.86			
	Nurse manager	37	138.82			
WE (Dedication)	Enrolled nurse	70	123.55	2.292	2	0.318
	Registered nurse	152	129.06			
	Nurse manager	37	146.08			
WE (Vigour)	Enrolled nurse	70	124.28	0.797	2	0.671
	Registered nurse	152	130.82			
	Nurse manager	37	137.45			
WE (Total)	Enrolled nurse	70	127.54	1.000	2	0.607
	Registered nurse	152	128.37			
	Nurse manager	37	141.36			
BO (Emotional exhaustion)	Enrolled nurse	70	135.93	4.631	2	0.099
	Registered nurse	152	122.41			
	Nurse manager	37	149.97			
BO (Professional efficacy)	Enrolled nurse	70	123.31	0.810	2	0.667
	Registered nurse	152	131.90			
	Nurse manager	37	134.82			
BO (Cynicism/ depersonalisation)	Enrolled nurse	70	131.64	0.807	2	0.668
	Registered nurse	152	131.73			
	Nurse manager	37	119.78			

The results displayed in Table 6.15 show significant levels for all constructs above 0.05, although the job/calling (0.061) and emotional exhaustion (0.099) scores were close to the threshold.

There is therefore no statistical evidence to support the hypothesis that significant differences in levels of work calling orientation, work engagement and burnout exist between professional position groups of nurses in the Khomas Region of Namibia.

6.4.7 Marital status

The demographic variable of 'marital status' was divided into three groups, and a Kruskal-Wallis test was done to identify group differences.

The results are tabulated in Table 6.16.

Table 6.16:
Marital status group differences – Mean ranks

Construct	Marital status	n	Mean rank	Kruskal-Wallis	Degrees of freedom	P-value
WCO (Job/calling)	Single	88	137.62	1.255	2	0.534
	Married/Engaged	145	126.33			
	Divorced/Widowed	27	129.70			
WE (Absorption)	Single	88	133.35	0.295	2	0.863
	Married/Engaged	145	129.83			
	Divorced/Widowed	27	124.78			
WE (Dedication)	Single	88	126.96	1.603	2	0.449
	Married/Engaged	145	135.11			
	Divorced/Widowed	27	117.30			
WE (Vigour)	Single	88	129.61	0.318	2	0.853
	Married/Engaged	145	132.31			
	Divorced/Widowed	27	123.70			
WE (Total)	Single	88	129.53	0.553	2	0.758
	Married/Engaged	145	132.80			
	Divorced/Widowed	27	121.31			
BO (Emotional exhaustion)	Single	88	122.49	1.515	2	0.469
	Married/Engaged	145	134.43			
	Divorced/Widowed	27	135.52			
BO (Professional efficacy)	Single	88	130.88	1.200	2	0.549
	Married/Engaged	145	133.01			
	Divorced/Widowed	27	115.78			
BO (Cynicism/ depersonalisation)	Single	88	124.61	4.928	2	0.085
	Married/Engaged	145	128.51			
	Divorced/Widowed	27	160.39			

The results displayed in Table 6.16 show significant levels for all constructs above 0.05, although cynicism/depersonalisation at (0.085) was close to the threshold.

There is therefore no statistical evidence to support the hypothesis that significant differences in the levels of work calling orientation, work engagement and burnout exist between the marital status of groups of nurses in the Khomas Region of Namibia.

6.4.8 Organisational type

A Mann-Whitney U test was used to test for differences between organisational type groups.

The results are tabulated in Table 6.17.

Table 6.17:
Organisational type group differences – Mean ranks

Construct	Private n=97	Government n=164	Mann-Whitney U	P-value
WCO (Job/calling)	109.03	143.99	5823.0	0.000
WE (Absorption)	123.21	135.61	7198.0	0.199
WE (Dedication)	132.82	129.92	7777.0	0.762
WE (Vigour)	120.07	137.47	6893.5	0.071
WE (Total)	122.01	136.32	7081.5	0.139
BO (Emotional exhaustion)	132.30	130.23	7827.5	0.830
BO (Professional efficacy)	121.27	136.75	7010.5	0.109
BO (Cynicism/ depersonalisation)	141.14	125.00	6970.5	0.094

The results displayed in Table 6.17 show significant levels for all constructs, except job/calling ($p=0.000$), being above 0.05, although vigour was (0.071) and cynicism/depersonalisation was (0.094) close to the threshold. There is therefore no statistical evidence to support the hypothesis that significant differences in levels of these construct measures exist between organisational type groups of nurses in the Khomas Region of Namibia.

Those nurses in government reported higher median values (0.73), compared to those in the private sector (0.67).

Previous studies have indicated that nurses who suffer from burnout have displayed negative, callous and excessive detached responses to various aspects of their job (Kasalak & Aksu, 2014; Laschinger, 2014). Depersonalisation causes individuals to

ignore the qualities that make them unique and pleasing to people and that could also lead to professional efficacy (Kim & Park, 2015; Lisjak & Lee, 2014; Xu & Cooper-Thomas, 2011).

6.4.9 Summary of group differences

Group differences were observed with regards to professional efficacy according to age, race/ ethnicity and work years (tenure). As indicated, more than 50% of the respondents were in the age group 40 years and above and had long work experience. They have gained experience, are committed to their work and may have crafted their jobs to align with their personal values and practices to avoid negative work outcomes, such as burnout (Duffy *et al.*, 2012; Kim & Park, 2015; Lisjak & Lee, 2014).

Significant ethnicity group differences were also observed with regards to job/calling. Again, this may be attributed to individual maturity, long experience and the ability to craft jobs (Lisjak & Lee, 2014; Van Bogaert *et al.*, 2014).

Significant tenure differences were also observed with regards to absorption, dedication and total work engagement. Previous studies have shown the correlation and mediation effects between employee engagement, age and tenure (Demerouti, Bakker & Fried, 2012; Douglass *et al.*, 2016; Green Jr. *et al.*, 2017).

Significant organisational group differences were observed only for job/calling orientation which was higher for government-owned than privately-owned organisations. Although government owned institutions may have less job resources tenure may have contributed to high scores in job/calling since these individuals have had opportunities to leave the profession but chose to stay. Studies on the JD-R model of work engagement show that the depletion of individual and organisational resources can lead to negative work outcomes (Ogunbamila, 2013).

6.5 CORRELATION ANALYSIS

The outcome of this analysis partly addressed Research aims 6, 7 and 8, and Hypothesis 2, 3 and 4.

Correlation analysis offers an exploratory view on the bivariate relationship between the construct measures.

6.5.1 Relationship between job/calling orientation and work engagement

First, the study sought to determine the statistical relationship between the constructs of work calling orientation and work engagement. This relates to H2₁, namely: There is a significant positive linear relationship between levels of work calling orientation and work engagement among nurses in the Khomas Region of Namibia.

Table 6.18 shows the correlation analysis results of job/calling orientation, work engagement and their respective sub-dimensions among nurses in the Khomas Region of Namibia.

Table 6.18:

Correlation between job/calling orientation and work engagement (n=261)

		WE Absorption)	WE (Dedication)	WE (Vigour)	WE (Total)
WCO (Job/calling)	Kendall's tau_b	0.221	0.283	0.266	0.292
	P-value	0.000	0.000	0.000	0.000

Based on Table 6.18, all the correlation coefficients were positive and significant ($p < 0.05$). Furthermore, the correlations varied between a low of 0.221 (absorption) and a high of 0.283 (dedication). Higher levels of job/calling orientation are associated with higher levels of work engagement. In other words, as work orientation levels move towards calling (higher end of the job/calling scale), work engagement also increases. However, these correlations are considered to have weak effects.

The interpretation of the results shown in Table 6.18 is provided below.

The statistically significant positive relationship between the job/calling orientation and work engagement may be attributed to the fact that both of them are positively worded (Duffy *et al.*, 2015; Holbeche & Matthews, 2012; Shuck *et al.*, 2015; Xu & Cooper-Thomas, 2011).

The literature reviewed in Chapter 2 defines work calling orientation as being associated with positive work outcomes that result from passion (Gaan & Mohanty, 2014), significance (May *et al.*, 2004), satisfaction (Duffy *et al.*, 2015), self-regulation (Booker & Mullan, 2013; Lisjak & Lee, 2014), and identity (Griepentrog *et al.*, 2012). In addition, it leads to motivation, the existence of other oriented values, and lower stress and depression (Bunderson & Thompson, 2009; Duffy *et al.*, 2015; Duffy *et al.*, 2012; Horvath, 2015).

In Chapter 3, work engagement was depicted as a positive work-related psychological and motivational state characterised by vigour, dedication and absorption (Macey & Schneider, 2008). Work engagement was viewed as a cognitive, emotional and behavioural construct that is associated with individual role performance (Saks, 2006), differentiated by terms such as passion (Shuck *et al.*, 2015), and psychological meaningfulness and identity (Dobrow, & Tosti-Kharas, 2011; Kahn, 1990). In addition, it is also associated with goal integration (Ellis & Sorenson, 2007), pride in work, enjoyment, inspiration and taking meaning from the organisation, which create a sense of destiny and connection with people (Holbeche & Matthews, 2012). Engaged individuals are also committed, have passion and enthusiasm, and are zealous and energetic at work (Shuck *et al.*, 2015).

Thus, calling orientation and work engagement are described by some common terms, such as passion, meaning, satisfaction, enthusiasm, zealous, pride and energetic at work, that explain the positive correlation between calling orientation, total work engagement and their sub-dimensions. Various other studies have confirmed the positive correlation between calling orientation and work engagement (Hannif, Burgess, & Connell, 2016; Rothmann & Hamukang'andu, 2013).

Therefore, the results of this study may suggest that both work calling orientation and work engagement are statistically related to nurses' positive world view, an important attribute for quality of life. The significant positive relationship between calling orientation and vigour, dedication and absorption suggest that though nursing is an emotionally demanding profession (Van Bogaert *et al.*, 2013), the respondents in this study are still energised when they consider their work a calling. These nurses are willing to spend their energy on work activities, demonstrate passion and flexibility, exhibit work identification and find it difficult to detach themselves from work while investing long hours in work.

Engaged employees who consider their work as a job/calling are expected to be flexible, creative and more productive to the benefit of the organisation. Additionally, positive work and organisational psychology emphasises that employees with high levels of work engagement have strengths and potential that could contribute to individual and social well-being (Wissing *et al.*, 2014).

Human resources departments play a large role in the hiring, training and retention of a team of employees who are experienced and motivated (managing employee life

cycle) to give the company a competitive advantage (Bal & De Lange, 2015). Albrecht *et al.* (2015) offer organisations clear guidelines on how HR practices (for example, selection, socialisation, performance management and training) can be used to facilitate and improve employee engagement that can result in positive outcomes for organisational competitive advantage.

Furthermore, in terms of organisational competitiveness, both external and internal branding are important in providing opportunities to help employees identify areas of calling, by providing an engaging, challenging and appealing work environment. Employees will then be creative and perform optimally to the benefit of the organisation.

Employees who view their work as a job/calling on a continuum require rewards and also require status and recognition for them to be engaged. Perceiving work as a job/calling orientation may affect employees' levels of involvement, resilience and enthusiasm (Dobrow & Tosti-Kharas, 2011; Kahn, 1990; Van Bogaert *et al.*, 2013) in their work, which in turn could have a negative effect on work outcomes and employee well-being (Wissing *et al.*, 2014).

Based on the results in Table 6.18, the study rejects the null hypothesis in favour of the alternative hypothesis. In other words, the results support the hypothesis that a significant positive correlation exists between job/calling orientation and work engagement (represented by absorption, dedication and vigour) among nurses in the Khomas Region of Namibia.

Empirically, recommendations are made for HRM departments and nurse managers and industrial psychologists. The aim is to ensure that practitioners recruit individuals who feel called to nursing, to train the existing workforce on job crafting, and to provide job resources to enhance effective productivity, and that can contribute to an engaged work force.

HRM practitioners can also introduce programmes to design work activities to promote organisational learning, innovation and flexibility, which can promote cooperation and collaboration through teamwork in the organisation. These programmes will improve performance, nurse motivation and engagement for better quality patient care in health care establishments.

Nurse managers should be trained to assess new nurse recruits to ensure that candidates have a calling towards the profession at entry into training, and they should create coaching and mentoring programmes that maintain the effective training and integration of new nurses.

Industrial psychologists should help create and implement tests and measures for nurse calling orientation and work engagement in the in health care establishments.

6.5.2 Relationship between job/calling orientation and burnout

This study also sought to determine the statistical relationship between the constructs of work calling orientation and burnout. This relates to H3₁, namely: There is a significant negative linear relationship between levels of work calling orientation and burnout among nurses in the Khomas Region of Namibia.

The results of this analysis are presented in Table 6.19.

Table 6.19:
Correlation between job/calling and burnout (n=261)

		BO (Emotional exhaustion)	BO (Professional efficacy)	BO (Cynicism/ depersonalisation)
WCO (Job/calling)	Kendall's tau_b	-0.268	0.133	-0.114
	P-value	0.000	0.002	0.001

As seen in Table 6.19, all the correlation coefficients were significant ($p < 0.05$), with two having a negative sign and one a positive sign. Job/calling reported a negative weak correlation with emotional exhaustion ($T_b = -0.268$); with professional efficacy a positive very weak correlation ($T_b = 0.133$); and with cynicism/ depersonalisation a very weak negative correlation ($T_b = -0.114$). As levels of job/calling orientation decreases (in other words moves towards job orientation), levels of burnout in the form of emotional exhaustion and cynicism/ depersonalisation increases. In contrast, as levels of job/calling orientation increases (in other words moves towards calling orientation), levels of burnout in the form of professional efficacy also increases

The negative relationship between the job/calling orientation scale, and exhaustion suggests that nurses with a calling orientation tends to be less exhausted, despite the work challenges experienced. This may be as a result of self-regulation on the part of

the employee, to contribute to the organisation's productivity that is equivalent to perceived rewards and recognition.

The negative relationship between job/calling orientation and cynicism/ depersonalisation proposes that nurses who have a clear job/calling orientation of work tend to experience lower feelings of cynicism and depersonalisation (Van Mol *et al.*, 2015).

In Chapter 2, work calling orientation was portrayed as a positive construct, while burnout was depicted in Chapter 4 as a negative construct evidenced by exhaustion, cynicism/depersonalisation and professional efficacy (Van Mol *et al.*, 2015). The concepts associated with work calling orientation included having a sense of identity, meaningfulness and degree of self-efficacy, while burnout was portrayed as feelings of fatigue and being worn out resulting from work overload and over-demand of the personal resources needed for dealing with work challenges (Demerouti *et al.*, 2003; Van Bogaert *et al.*, 2017).

Therefore, nurses who view their work as a calling find it meaningful, identify themselves with their work, and have a high degree of self-efficacy (Dik & Duffy, 2009; Dobrow & Tosti-Kharas, 2011; Hall & Chandler, 2005). Nurses who identify their work as integral to their lives and their purpose (Wrzesniewski *et al.*, 1997) are less likely to be strained emotionally, cognitively and physically from the prolonged intensity of the work (Demerouti *et al.* 2003). Conversely, the job resources provided and personal resources available, such as self-regulation (choosing tasks that one can cope with) and job skills, may effectively reduce job demands and regulate the individual's feelings to avoid cynicism/ depersonalisation.

An increase in the job/calling orientation scores (in other words moving towards calling orientation) may be associated with the lower incidence of exhaustion and cynicism/depersonalisation, while the decrease in job/calling orientation (in other words moving towards job orientation) scoring is associated with increased scores in exhaustion and cynicism/ depersonalisation.

In this study, the negative relationship between job/calling orientation and cynicism/ depersonalisation could also be an indication that nurses are motivated by promotion opportunities, personal growth and development, as a result of mobility from government-owned to private health care providers and *vice versa*. Additionally, in a

country with a high unemployment rate, such as Namibia, some nurses may be feeling grateful that they have work to do, despite other challenges experienced.

The positive relationship between job/ calling orientation and the professional efficacy sub-scales suggests that nurses who have a calling orientation are more likely to have the ability to carry out the behaviours needed to reach certain desired work outcomes and personal goals (Gagne & Deci, 2005; Ryan & Deci, 2000; Swartz *et al.*, 2016).

In summary, nurses with high work calling orientation scores will tend to suffer less exhaustion and cynicism/depersonalisation. This may be attributed to the fact that job/calling orientation enhances the experience of work being meaningful and having a sense of work identity (Duffy *et al.*, 2012; Hirschi, 2012). Individual nurses with a high job/calling-orientation tend to view their work with feelings of passion, interest, importance and as something worth spending time and energy on (Shea-van-Fossen & Vredenburg, 2014; Mageau & Vallerand, 2007). When employees have passion for what they do, they are re-energised and revitalised by performance and seek new and innovative ways of solving problems on the job. The more people have a harmonious passion, the more they tend to experience flow in their favourite activity, which in turn predicts higher well-being (Carpentier, Mageau, & Vallerand, 2012).

The result indicates that nurses with high calling orientation also tend to have lower levels of burnout.

The results support the literature that found total work calling orientation to be a positive construct, while burnout is a negative construct (Schaufeli *et al.*, 2009). However, different relationships were confirmed at the sub-dimensional level, although the relationship is weak but significant. The respondents who scored high on calling orientation, also tended to have increased exhaustion, which may be due to over-commitment in a work environment with diminishing resources. Those who score high on career orientation may not feel empowered to achieve their set goals at personal and organisational level (Dobrow & Tosti-Kharas, 2011) and therefore, score low on professional efficacy. Those who scored high on job orientation may not feel adequately rewarded to become motivated and productive (Wrzesniewski *et al.*, 1997).

Additionally, nurses who scored high on job/calling orientation also scored high on professional efficacy, which indicates that they are able to craft their work to be more

productive. They may recognise a clear career pathway and perceive fair and equitable rewarded mechanisms.

6.5.3 Relationship between work engagement and burnout

The study also sought to determine the relationship between work engagement and burnout among nurses in the Khomas Region of Namibia, as presented in Table 6.20. This relates to H4₁, namely: There is a significant negative linear relationship between levels of burnout and work engagement among nurses in the Khomas Region of Namibia.

Table 6.20:
Correlation between work engagement and burnout (n=261)

		BO (Emotional exhaustion)	BO (Professional efficacy)	BO (Cynicism/ depersonalisation)
WE Absorption)	Kendall's tau_b	-0.113	0.153	-0.105
	P-value	0.008	0.000	0.016
WE (Dedication)	Kendall's tau_b	-0.202	0.147	-0.173
	P-value	0.000	0.001	0.000
WE (Vigour)	Kendall's tau_b	-0.147	0.180	-0.109
	P-value	0.001	0.000	0.013
WE (Total)	Kendall's tau_b	-0.159	0.172	-0.136
	P-value	0.000	0.000	0.000

Table 6.20 above displays the results of the correlation analysis between the constructs of work engagement and burnout sub-dimensions. The correlation between total work engagement and burnout are significant ($p < 0.05$), but weak to very weak.

Emotional exhaustion reported a negative very weak correlation with overall work engagement ($T_b = -0.159$), as well as all the sub-dimensions. These were absorption ($T_b = -0.113$), dedication ($T_b = -0.202$) and vigour ($T_b = -0.147$).

Professional efficacy reported a positive very weak correlation with overall work engagement ($T_b = 0.172$), as well as all the sub-dimensions. These were absorption ($T_b = 0.153$), dedication ($T_b = 0.147$) and vigour ($T_b = 0.180$).

Cynicism/ depersonalisation reported a negative very weak correlation with overall work engagement ($T_b=-0.136$), as well as all the sub-dimensions. These were absorption ($T_b=-0.105$), dedication ($T_b=-0.173$) and vigour ($T_b=-0.109$).

As levels of emotional exhaustion increase, levels of work engagement decrease, and *vice versa*. A similar relationship is evident for cynicism/ depersonalisation. In contrast, as the levels of professional efficacy increase, so do the levels of work engagement.

The negative relationship between the total work engagement scale and the burnout sub-dimensions of exhaustion and cynicism/depersonalisation indicate that engaged employees are less likely to feel exhausted and cynical/depersonalised with their work. The positive relationship between total engagement scale and the burnout sub-dimension of professional efficacy indicates that engaged employees are more likely to experience professional efficacy

The results indicate that there is a significant relationship between total work engagement and its sub-dimensions, and the burnout sub-dimensions of exhaustion, cynicism/ depersonalisation and professional efficacy. The results also suggest that nurses who are not engaged, are more likely to suffer burnout as a result of boredom than their engaged counterparts.

The negative relationships between the work engagement sub-dimensions of vigour, dedication and absorption, and the burnout sub-dimensions of exhaustion and cynicism/ depersonalisation, ranging from very weak to weak, suggest that nurses who feel vigorous, dedicated, committed and engrossed in their work are less likely to feel exhausted, cynical and depersonalised when working and serving recipients (Van der Colff & Rothmann, 2014). This is consistent with the results of nurse studies in South Africa (Bezuidenhout, 2010; Van der Colff & Rothmann, 2014).

The results also propose that the more employees are engaged in their work, the less likely they are to feel exhausted and become callous and uncaring towards their clients. Engaged employees are more energised by their work, and therefore, are more dedicated and absorbed in their work than their less engaged counterparts. This confirms previous studies that confirm this trend (Bakker *et al.*, 2010; Xu & Cooper-Thomas, 2011; Maslach & Jackson, 1986; Maslach *et al.*, 2001; Schaufeli *et al.*, 2009).

It can thus be deduced that HRM departments and nurse managers should provide job resources to employees and also introduce self-managed teams that encourage

participative decision-making and training activities on optimism, resilience and goal alignment. Additionally, HR professionals need to implement work engagement training activities that will equip employees with competencies for organisational citizenship, personal development (Shuck *et al.*, 2015), participative decision-making (Chen *et al.*, 2014), in addition to job related skills.

In summary, there is a negative relationship between total work engagement and total burnout, as found by previous studies. However, the relationship with professional efficacy is positive, because they are both worded positively, as has been revealed in previous research (Brand-Labuschagne *et al.*, 2013; Schaufeli & Bakker, 2003).

The positive relationship between vigour and professional efficacy implies that respondents, who believe they have what it takes to accomplish goals, will also have energy and resilience in performing their jobs.

The positive relationship between professional efficacy and dedication suggests that nurses who feel confident to achieve job goals will also have a sense of significance, inspiration and pride for the work (Klein *et al.*, 2012).

The positive relationship between professional efficacy and absorption proposes that nurses who are confident to achieve goals will also be fully focused, have heightened concentration, and be happily engrossed in their work and in 'flow' (Wissing *et al.*, 2014). Being in flow is a state of optimal experience that is characterised by focused attention, a clear mind, mind and body union, effortless concentration, complete control, loss of self-consciousness, distortion of time, and intrinsic enjoyment (Csikszentmihalyi, 1990; Wissing *et al.*, 2014). These are the nurses who contribute to quality of health care and professional development.

To enhance the feelings of being in 'flow', HR practitioners can implement systems and processes to empower employees, give them autonomy at job level and provide opportunities for participative decision-making (Chen *et al.*, 2014). In addition, (Ryan & Deci, 2001) posit that feeling competent and confident (empowered) is associated with enhanced intrinsic motivation and well-being. When employees are committed to their work, they tend to be more engaged, own the process of job performance, and therefore, maintain quality of nursing care.

6.5.4 Relationship between the burnout sub-dimensions of professional efficacy, exhaustion and cynicism/ depersonalisation

The study also sought to determine the relationship between the work burnout sub-dimensions of professional efficacy, exhaustion and cynicism/ depersonalisation among nurses in the Khomas Region of Namibia, as presented in Table 6.21.

Table 6.21:
Correlation between professional efficacy, exhaustion and cynicism/ depersonalisation (n=261)

		BO (Emotional exhaustion)	BO (Cynicism/ depersonalisation)
BO (Professional efficacy)	Kendall's tau_b	-0.029	-0.067
	P-value	0.497	0.119

The correlation between professional efficacy and the other sub-dimensions of burnout is non-significant. The literature reviewed in Chapters 3 and 4 postulate work engagement as a positive construct and burnout as negative. Both constructs are viewed on a continuum, where an increase in work engagement reduces the incidence and frequency of burnout (Maslach & Jackson, 1986; Schaufeli & Bakker, 2003).

In this study, the negative relationships between total work engagement and total burnout may be attributed to the increasing job demands and diminishing of job resources. This includes increasing workloads resulting from the migration of nurses to the developed world where they get better rewards (Ogunbamila, 2013), lack of organisational support (Bakker *et al.*, 2010) and lack of management competencies and individual nurse self-management skills (Görgens-Ekermans & Brand, 2013).

Pfaff *et al.* (2014) posit that the factors influencing engagement, including proposed self-confidence, knowledge, experience, communication skills, support and respect (job demand-resources) are both barriers and facilitators of engagement and inter-professional collaboration (Schaufeli & Bakker, 2004).

HRM departments could therefore implement training programmes to equip nurse managers and line employees with competencies related to employee engagement and collaboration in an effort to reduce the incidence and frequency of burnout in the workplace. Moreover, Bal and De Lange (2015) postulate that flexibility in the HRM practices was positively related to engagement among younger workers, although it was positively related to increased job performance among older workers. Furthermore, they argue that this effect is better explained by the COR theory which

stipulates that individuals are motivated to protect and acquire new resources (Bal & De Lange, 2015). HRM departments should therefore be flexible in identifying employee needs and implement programmes and activities to meet those needs.

6.6 PATH ANALYSIS

According to Hayes (2015), the multiple regression results that can be obtained from a path analysis highlight two aspects: firstly, the R^2 values indicate how well a set of variables explains a dependent variable, and secondly, the regression results measure the direction and size of the effect of each variable on a dependent variable.

The outcome of this analysis, in addition to Section 6.5, addressed Research aims 6, 7 and 8, and Hypothesis 2, 3 and 4.

6.6.1 Direct relationship between job/calling and work engagement

The statistical relationship between job/calling orientation and work engagement was determined using path analysis. This relates to H2₁, namely: There is a significant positive linear relationship between levels of work calling orientation and work engagement among nurses in the Khomas Region of Namibia.

The main results for the estimated model are reported in Table 6.22 and Figure 6.12.

Table 6.22:
Summary of path results: Job/calling and work engagement

Sub construct	Unstandardised estimate	Standardised estimate	Square of variation (R ²)	P-value
WCO (Job/calling) → WE (Total)	2.313	0.432	0.187	0.000

The result of the path direction for the interaction between job/calling and work engagement is reflected in Figure 6.12.

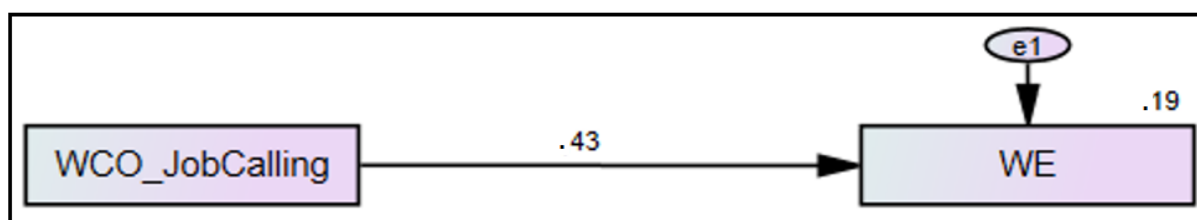


Figure 6.12:
Path diagram: Job/calling and work engagement

The results from the path analysis show job/calling to be a significant predictor of work engagement (Beta=2.313, $p < 0.05$; $R^2 = 0.187$). More specifically, job/calling is shown to have a positive statistical relationship with work engagement among nurses in the Khomas Region of Namibia. This supports Hypothesis 2.

6.6.2 Direct relationship between job/calling and burnout

Next, the statistical relationship between job/calling orientation and burnout was determined using path analysis. This relates to H3₁, namely: There is a significant negative linear relationship between levels of work calling orientation and burnout among nurses in the Khomas Region of Namibia.

The main results for the estimated model are reported in Table 6.23 and Figure 6.13.

Table 6.23:
Summary of path results: Job/calling and burnout

Sub construct	Unstandardised estimate	Standardised estimate	Square of variation (R ²)	P-value
WCO (Job/calling) → BO (Emotional exhaustion)	-8.969	-0.362	0.131	0.000
WCO (Job/calling) → BO (Professional efficacy)	6.921	0.191	0.037	0.002
WCO (Job/calling) → BO (Cynicism/ depersonalisation)	-3.970	-0.254	0.064	0.000

The results of the interaction between job/calling, and the burnout sub-dimensions of emotional exhaustion, professional efficacy and cynicism/ depersonalisation are reflected in Figure 6.13.

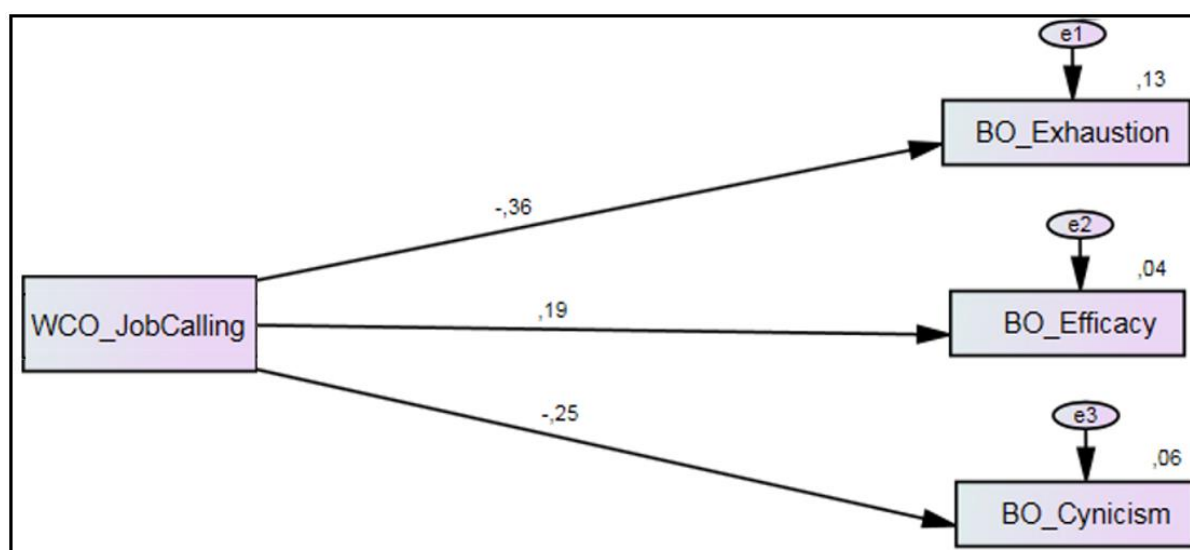


Figure 6.13:
Path diagram: Job/calling and burnout

The results from the path analysis show job/calling to be a significant negative predictor of work engagement (Beta=-8.969, $p<0.05$; $R^2=0.131$). In other words, higher levels of job/calling are associated with a decrease in levels of emotional exhaustion (and vice versa) among nurses in the Khomas Region of Namibia.

There is a significant positive relationship between job/calling and professional efficacy (Beta=6.921, $p<0.05$; $R^2=0.037$). As job/calling orientation increases so does professional efficacy among nurses in the Khomas Region of Namibia.

A significant negative relationship between job/calling and cynicism/ depersonalisation is reported (Beta=-3.970, $p<0.05$; $R^2=0.064$). As job/calling orientation increases cynicism/ depersonalisation decreases amongst (and vice versa) among nurses in the Khomas Region of Namibia.

Lastly, a comparison of the standardised beta coefficients (absolute values) show job/calling to be a better predictor of emotional exhaustion (Std Beta=0.362) than it is for cynicism/ depersonalisation (Std Beta=0.254) and professional efficacy (Std Beta=0.191).

The results therefore indicate that Hypothesis 3 can be partially accepted, namely, that job/calling is shown to have a significant negative relationship with burnout (emotional exhaustion and cynicism/ depersonalisation) among nurses in the Khomas Region of Namibia. A positive relationship was identified between job/calling and professional efficacy.

6.6.3 Direct relationship between burnout and work engagement

The last direct relationship to be tested using path analysis was that between burnout and work engagement. This relates to H4₁, namely: There is a significant negative linear relationship between levels of burnout and work engagement among nurses in the Khomas Region of Namibia.

The main results for the estimated model are reported in Table 6.24 and Figure 6.14.

Table 6.24:
Summary of path results: Burnout and work engagement

Sub construct	Unstandardised estimate	Standardised estimate	Square of variation (R^2)	P-value
BO (Emotional exhaustion) → WE (Total)	-0.023	-0.108	0.161	0.076
BO (Professional efficacy) → WE (Total)	0.040	0.269		0.000
BO (Cynicism/ depersonalisation) → WE (Total)	-0.078	-0.229		0.00

The results of the interaction between job/calling, and the burnout sub-dimensions of emotional exhaustion, professional efficacy and cynicism/ depersonalisation are reflected in Figure 6.14.

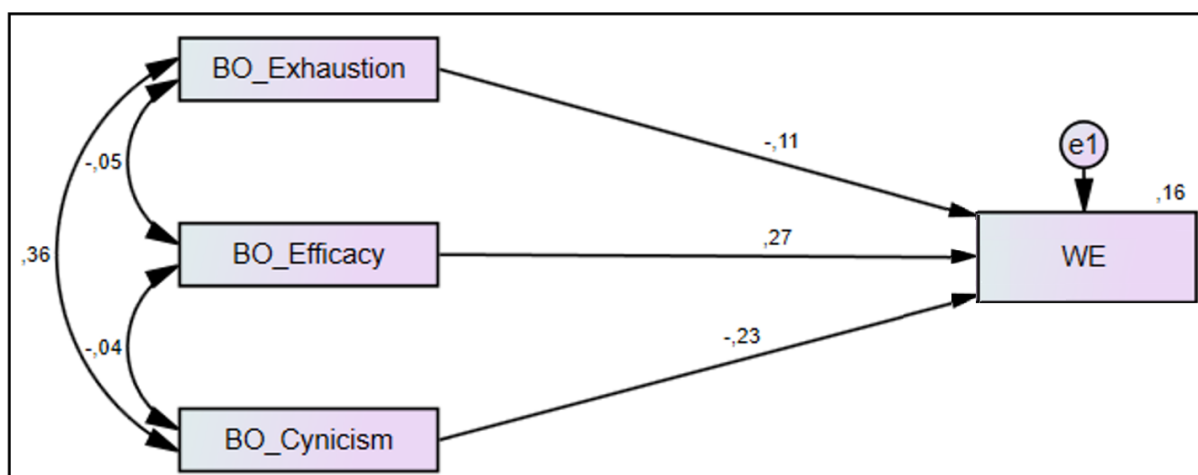


Figure 6.14:
Path diagram: Burnout and work engagement

The results from the path analysis show two of the three burnout sub-dimensions to be significant predictors of work engagement, namely professional efficacy (Beta=0.040, $p<0.05$) and cynicism/ depersonalisation (Beta=-0.078, $p<0.05$). The loading for emotional exhaustion was not significant (Beta=-0.023; $p=0.076$). Overall, the $R^2=0.161$.

The relationship between professional efficacy and work engagement is positive, while that between cynicism/ depersonalisation and work engagement negative. This was also an of the correlation analysis. A comparison of the standardised beta coefficients (absolute values) show professional efficacy (Std Beta=0.269, $p<0.05$) to be loading only marginally more than cynicism/ depersonalisation (Std Beta=0.229).

The results therefore indicate that Hypothesis 4 can be partially accepted, namely, that burnout is shown to have a significant negative relationship with work engagement, only in the case of cynicism/ depersonalisation among nurses in the Khomas Region of Namibia. A positive relationship was identified between professional efficacy and work engagement.

6.6.4 Testing burnout as a mediator between job/calling and work engagement

The previous three sections tested the direct relationships between the various measures. The mediating effect is assessed next. This relates to Hypothesis 5, which states: Burnout mediates the relationship between levels of work calling orientation and work engagement among nurses in the Khomas Region of Namibia.

The results of the interaction between job/calling (independent), the burnout sub-dimensions of exhaustion, professional efficacy and cynicism/ depersonalisation (mediators), and work engagement (dependent) are reflected in Table 6.25 and Figure 6.15.

Table 6.25:
Summary of regression for work engagement, job calling and burnout sub-dimensions.

Sub construct	Unstandardised estimate	Standardised estimate	Square of variation (R ²)	P-value
WCO (Job/calling) → WE (Total)	1.848	0.345	0.260	0.000
WCO (Job/calling) → BO (Emotional exhaustion)	-8.969	-0.362		0.000
WCO (Job/calling) → BO (Professional efficacy)	6.921	0.191		0.002
WCO (Job/calling) → BO (Cynicism/ depersonalisation)	-3.970	-0.254		0.000
BO (Emotional exhaustion) → WE (Total)	-0.001	-0.003		0.959
BO (Professional efficacy) → WE (Total)	0.031	0.210		0.000
BO (Cynicism/ depersonalisation) → WE (Total)	-0.062	-0.180		0.001

The results of the mediating path effect of burnout between job/calling and work engagement are reflected in Figure 6.15.

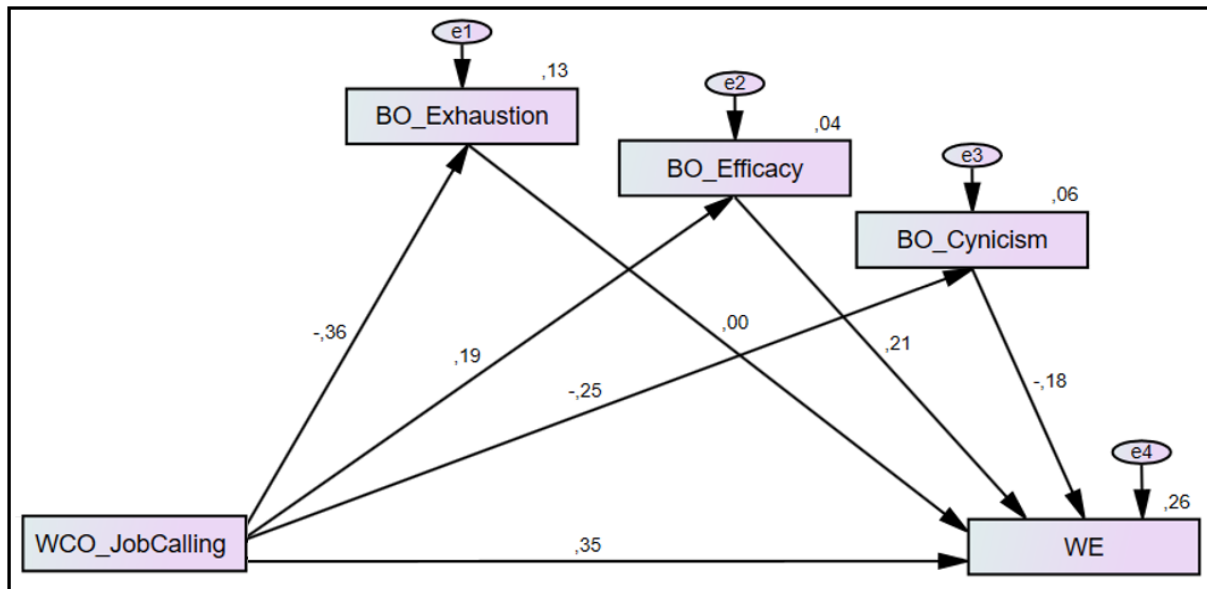


Figure 6.15:
Interaction of mediating effect of burnout between job/calling and work engagement

Section 6.6.1 reported the standardised beta for the direct relationship between job/calling orientation and work engagement as 0.432. With the introduction of the burnout sub-dimensions as additional explanatory variables in the path diagram, the standardised beta reduced to 0.345. This reduction suggests some mediation effect of the additional variation between job/calling and work engagement being explained by burnout.

Using the IBM SPSS add-on macor PROCESS (Hayes, 2012), the mediation effect of the burnout sub-dimensions was tested for significance.

The results are presented in Table 6.26.

Table 6.26:
Mediation table

Construct	Effect	Bootstrap Standard error	Bootstrap Lower Confidence Interval	Bootstrap Upper Confidence Interval	Results
BO (Emotional exhaustion)	0.006	0.116	-0.220	0.244	No mediation
BO (Professional efficacy)	0.215	0.089	0.062	0.411	Mediation
BO (Cynicism/ depersonalisation)	0.245	0.118	0.059	0.513	Mediation

The indirect effects were tested using a bootstrap estimation approach with 10 000 samples. The results indicated significant mediation effects for professional efficacy (CI 0.062-0.411) and cynicism/ depersonalisation (CI 0.059-0.513), but not for emotional exhaustion (-0.220-0.244).

The results, therefore, indicate that Hypothesis 5 can be partially accepted. Increasing levels of job/calling are positively correlated with increasing levels of professional efficacy and work engagement. In contrast, increasing levels of job/calling are negatively correlated with decreasing levels of cynicism/ depersonalisation and work engagement. In both cases, the mediators explain a significant proportion of the total effect. Emotional exhaustion was not identified as a mediator.

6.6.5 Testing for moderating effects

The last hypothesis stated: Selective demographic characteristics moderate the statistical relationship between work calling orientation, work engagement and burnout among nurses in the Khomas Region of Namibia. The selective demographics that were considered as moderators were: gender, age, ethnicity, qualification level, length of service, professional position, marital status and organisational type.

The results of the moderation test pertaining to the highest order unconditional interaction are reported in Table 6.27. PROCESS was again used to conduct the analysis. A p-value smaller than 0.05 indicates that the R-square, as a result of the moderator, was significant.

Table 6.27:

Moderation table: P-values indicating significant R-square change

Demographic characteristics	WCO(JC)-WE	BO(EЕ)-WE	BO(PF)-WE	BO(CD)-WE	WCO(JC)-BO(EЕ)	WCO(JC)-BO(PF)	WCO(JC)-BO(CD)
Gender	0.701	0.872	0.741	0.688	0.147	0.099	0.363
Age	0.190	0.987	0.856	0.748	0.888	0.832	0.024
Ethnicity	0.354	0.570	0.840	0.223	0.312	0.581	0.090
Qualification level	0.420	0.340	0.387	0.955	0.908	0.690	0.137
Length of service	0.009	0.233	0.770	0.830	0.843	0.293	0.625
Professional position	0.096	0.029	0.186	0.564	0.777	0.418	0.261
Marital status	0.508	0.203	0.466	0.699	0.515	0.965	0.000
Organisational type	0.439	0.011	0.611	0.033	0.054	0.243	0.039

Note: WE=Work engagement; WCO(JC)=Job/calling; BO(EЕ)=Emotional exhaustion; BO(PF)=Professional efficacy; BO(CD)=Cynicism/ depersonalisation

A number of moderating effects were identified, namely:

- The relationship between job/calling and cynicism/ depersonalisation is moderated by age ($p=0.024$). The effect between these two constructs are significant for nurses 30 years and younger and those 51 years and older. The effect is non-significant for those nurses 31 to 50 years old.
- The relationship between job/calling and work engagement is moderated by length of service ($p=0.009$). The effect between these two constructs are significant for those nurses with less than 10 years of service. The effect is non-significant for those with longer years of service.
- The relationship between emotional exhaustion and work engagement is moderated by professional position ($p=0.029$). The effect between these two constructs is significant for registered nurses. The effect is non-significant for enrolled nurses and nurse managers.
- The relationship between job/calling and cynicism/ depersonalisation is moderated by marital status ($p=0.000$). The effect between these two constructs are significant for single and divorced/widowed nurses. The effect is non-significant for married/engaged nurses.
- The relationship between job/calling and cynicism/ depersonalisation is moderated by organisational type ($p=0.039$). The effect between these two constructs is stronger for nurses working in the private sector than those working in government hospitals.
- The relationship between emotional exhaustion and work engagement is moderated by organisational type ($p=0.011$). The effect between these two constructs are significant for nurses in the private sector. The effect is non-significant for those nurses working in government hospital.
- The relationship between cynicism/ depersonalisation and work engagement is moderated by organisational type ($p=0.033$). The effect between these two constructs are significant for nurses in the private sector. The effect is non-significant for those nurses working in government hospitals.

Based on these results, the data also did not support moderated mediation for any of the demographic variables. Therefore, the last hypothesis is only partially accepted,

with only a few of the relationships being moderated by the demographic characteristics, but with no support for full moderated mediation.

6.7 INTEGRATION AND DISCUSSION

This section integrates the research results and discusses the results in terms of each of the stated research aims.

6.7.1 Demographics characteristics and profile of the sample

The participants in this sample were predominantly employed female nurses within the age group of 40 years and above, had a diploma qualification or above, and were registered as professional nurses. The length of service is related to age, and the majority of respondents had 20 or more years of service, working in private and government-owned health care institutions in Windhoek, Khomas Region, Namibia. The demographic characteristics that were considered in the interpretation of results in this study include gender, age, educational background, length of service, marital status, position held, and the type of organisation the individuals were working at.

6.7.2 Interpretation of descriptive statistics

The results of this study revealed that older and experienced nurses scored higher on calling orientation, were more engaged and had higher professional efficacy than younger nurses. Studies by Van Bogaert (2014) suggested job crafting for better work outcomes is positively correlated with dedication among employees and work experience (Van der Colff & Rothmann, 2014).

In this study, the respondents showed moderate to lower levels of cynicism/ depersonalisation, despite their long service. The younger nurses scored low on Calling, Dedication and Professional Efficacy. This may be as a result of a lack of empowerment and career pathing (Van der Colff & Rothmann, 2014). They did not participate in the study as expected and this could be attributed to being pressed for time, due to a heavy workload or lack of resources (Ogunbamila, 2013). The younger respondents may not consider their work as a Calling, but as a Job or Career, in which case, they prefer work that does not interfere with their personal lives, ensures upward mobility in their careers, raises, job titles, and allows them to achieve the social standing associated with the career (Wrzesniewski *et al.*, 1997). Empirical evidence to support this finding has been found in other studies (Chaukos *et al.*, 2017; Hwa,

2012; Rogala, Shoji, Luszczynska, Kuna, Yeager, Benight, & Cieslak, 2016). In this study, most of the respondents were older and held higher professional positions than the young and upcoming professional nurses.

The high levels of absorption and dedication among the respondents may be an indication of commitment to and pride in work that they consider meaningful and which contributes to the public good. This helps the nurses stay engaged in their work, despite facing challenges.

Most of the respondents scored lower in the vigour sub-dimension than for absorption and dedication. There have been many complaints about customer care, especially in government-owned institutions (Atinga, 2013; Hamaideh, 2011; Sankwasa, 2012). The complaints included nurses being rude to patients and sometimes treating patients violently. The participants who scored low on vigour may not flourish, enjoy quality of life, and may not function optimally in their work environment. This may have led to cynicism or depersonalisation and other negative outcomes that may account for the client complaints about the health/customer care services received.

The results also indicate mild to moderate level of exhaustion among the respondents that may be accounted for by high increasing job demands (heavy workload) and lack of job resources (equipment and lack of organisational support). This supports similar studies such as those by Van Bogaert *et al.* (2013) and Van Dam *et al.* (2013).

The empirical results in this study indicated that nurses in the Namibian health care industry have higher levels of education, with diploma holders being the largest category of respondents. Studies have indicated that the higher the qualification of nurses, the better the quality of nursing care (Gevers & Demerouti, 2013; Van Bogaert *et al.*, 2013; Van Dam *et al.*, 2013). In reality, there have been complaints about the quality of services in the Namibian health care services (Sankwasa, 2012). Complaints of quality of service may be accounted for by a lack of job resources (Brockmeyer, 2012) and organisational support (Blanco-Donoso *et al.*, 2016; Diedericks & Rothman, 2013). This is in line with the JD-R model that has shown that having an adequate amount of resources, can lead to various positive work outcomes such as work engagement and performance (Demerouti *et al.*, 2001; Rothmann & Cooper, 2015). Moreover, Namibia is not exempt from the migration of health care workers to first world countries (Ogungbamila, 2013), leading to severe work overload. Furthermore,

nurses in Namibia may be suffering from compassion fatigue, resulting from the continuously demanding work environment (Van Mol *et al.*, 2015) that might require HRM interventions, such as training programmes for personal efficacy and career mentoring.

The largest category of respondents was those registered in the “nurse professional” category that, as indicated, should contribute to better quality of health care services. This category of nurses may also have extended work experience and a clear career path to contribute to the high levels of professional efficacy. They also have had opportunities to exit the profession or have learned how to craft their jobs into a calling and therefore avoid negative work outcomes. Although nurses in government institutions accounted for more than 60% of the respondents, there were no significant differences with regards to the type of institution. Nurses tended to circulate between government and privately-owned institutions for full-time and part-time employment.

6.7.3 Research aim 5

Research aim 5: *To investigate whether significant differences exist between groups of nurses in the Khomas Region of Namibia, as defined by selected demographic characteristics, in relation to work calling orientation, work engagement and burnout.*

Group differences were tested through Kruskal-Wallis and Mann-Whitney U tests. Group differences were observed with regards to professional efficacy, according to age, race/ ethnicity and work years (tenure), ethnicity and job/calling, tenure differences in regards to absorption, dedication and total work engagement, type of organisation and job/calling. This partially confirmed hypothesis 1 as follows:

In general, the findings indicated validity for the three sub-dimensions of work calling orientation and work engagement, as indicated in previous studies (Van der Colff & Rothmann, 2014; Rothmann & Hamukang'andu, 2013; Schaufeli *et al.*, 2002; Wrzesniewski *et al.*, 1997). The construct and discriminant validity of the sub-dimensions obtained adequately high reliabilities, which were considered acceptable for further analysis in this study.

The largest category of respondents was those with a diploma qualification, which may indicate more years of service where individuals have had the opportunity to improve their qualifications. Those with more years of experience but who did not actually

consider nursing as a calling may also have had the opportunity to exit the industry. The fact that these experienced nurses are still in the profession may be an indication of a calling orientation or ability to craft jobs, which is positively related to engagement and professional efficacy.

Evidence from this study indicates that older nurses are cognitively and behaviourally engaged, as reflected by the higher levels of dedication and absorption to their work. This is an indication that they have more positive attitudes and intentions in their performance behaviour than younger and inexperienced nurses. Various authors have reported similar results (Bakker *et al.*, 2010; Steffens *et al.*, 2014).

It is also not clear whether the nurse population tends to be older in Namibia, accounting for the skewness of data collected, or that older nurses were more willing to participate in the study. The sampling procedure was random and dependant on the nurses' willingness to participate in the study. If the nurse population is aging, there is a need for succession planning interventions to be put in place, to ensure continuous quality of nursing care.

If younger and inexperienced nurses do not display positive attitudes and intentions towards their work, then there is a need for training on engagement, job crafting and customer services (Asuero *et al.*, 2014; Demerouti, 2015). Since engaged employees are an asset to the organisation, supervisors should also be trained to create a supporting organisational environment, goal setting, self-management strategies and transfer of learning. This will ensure the more effective management of employees at organisational level that could lead to an increase in the necessary job resources to reduce incidents of burnout. With regards to job demands, employees can be empowered to improve their personal effectiveness, performance skills and decision-making, in addition to being provided with the tools required for effective performance.

The research findings revealed that older and more experienced nurses scored higher on calling orientation, where more engaged nurses had higher professional efficacy than younger ones. Conversely, younger nurses scored low on calling, dedication and professional efficacy. Thus, younger nurses were more prone to traumatic stress and compassion fatigue (Bakker, 2015; Van Mol *et al.*, 2015) that is intensified by a lack of job resources to handle the corresponding job demands. These negative work

outcomes impact on performance via self-efficacy, job skills and professional efficacy, as confirmed in previous studies (Bakker *et al.*, 2011; Kim & Park, 2015).

Since most participants were over 40 years old, it may imply that younger nurses did not participate in the study as expected, due to heavy workload, lack of job resources and lack of empowerment, in line with studies by Van der Colff and Rothmann (2014). Younger nurses may also consider their work as a job in which they receive rewards to meet their needs, or a career in which upward mobility, job titles and social standing may be the motivator (Wrzesniewski *et al.*, 1997). Some may also view the work they are doing now as a transit position while looking for better jobs.

High levels of absorption and dedication may be an indication of respondents' commitment and pride in work that they consider meaningful and that contributes to the public good. Additionally, Leon, Halbesleben and Paustina-Underdahl (2015) posit that job resources empower an employee to achieve engagement, while engagement acts against burnout. This helps the nurses stay engaged in their work, despite facing challenges, while participants who scored low on vigour may not flourish, enjoy quality of life and function optimally in their work environment.

The respondents in this data set also indicated higher levels of education that may contribute to a better quality of health care (Upa & Demerouti, 2013; Van Bogaert *et al.*, 2013; Van Dam *et al.*, 2013). Complaints may be an indication of the increased awareness of individual rights among service recipients without corresponding changes in the systems and procedures for providing the services, or even lack of job resources.

Practically, HR practitioners and Health Care Managers can train nurses on job crafting techniques, and encourage individual tests to identify their calling orientation for future career progression. Performance appraisals can be linked to individual personal development and reward mechanisms to ensure personal growth and better performance. Mentoring and coaching can be provided to support, especially younger nurses to grow into the profession. Nurse Managers can also be trained on management skills so that they can effectively supervise, communicate and administer nursing services. Mature and qualified nurses can be trained on coaching and mentoring young and upcoming nurses to ensure a continuous crop of professionals who are called and are engaged in the nursing profession.

6.7.4 Research aim 6

Research aim 6: *To identify the nature of the statistical relationship between the levels of job/calling orientation and work engagement among nurses in the Khomas Region of Namibia.*

The results indicated a significant positive relationship between job/calling orientation and work engagement. This may be accounted for by the fact that people with calling orientation view their work as an integral part of their lives, personal identity, a form of self-expression and personal fulfilment. They are therefore energised by the work activities and more committed to perform. The nurses in this study perceive the reward mechanism as equitable and hope to improve their life by continuing in the profession.

Job/calling orientation was positively related to work engagement with the sub-dimension, considering the level of significance at 0.05 because they are all positively worded (Duffy *et al.*, 2013; Shuck *et al.*, 2015). The results suggest that a large proportion of nurses in the Namibian health care sector consider their work as a calling and are engaged in it.

HRM practices can play a role in recruiting the right individuals (who have a calling towards the helping services), by implementing training and development programmes that can improve engagement and equip employees with the required competencies for job crafting to improve on positive work outcomes. The work environment can also be improved to provide support for nurses in their job performance. Recognition programmes can be implemented to encourage excellence in performance and professional growth. HR practitioners can also implement periodic employee surveys to identify challenges and collect suggestions on solutions that nurses may have to improve the work environment, and support individuals and groups to continuously improve performance.

6.7.5 Research aim 7

Research aim 7: *To identify the nature of the statistical relationship between job/calling orientation and burnout among nurses in the Khomas Region of Namibia.*

The results revealed that there is a statistically significant negative correlation between job/calling orientation in relation to emotional exhaustion and cynicism/depersonalisation, while a significant relationship was found with professional efficacy.

This means the higher the work calling orientation scores, the higher the scores for professional efficacy, and the lower the scores for emotional exhaustion and cynicism/depersonalisation. The implication may be that as long as the nurses identify their work orientation as a job/calling, it tends to reduce the negative effect work has on the individual. The perceived professional efficacy may also indicate the ability for job crafting. Similar results were confirmed by Van der Colff and Rothmann (2014) who posit that individuals pursue reciprocity in exchange relationships, and if an imbalance exists between investments and outcomes, inequity (lack of reciprocity) is experienced, leading to burnout. In addition, a perceived lack of competency and a lack of specialised training can lead to a lack of self-efficacy (Van der Colff & Rothmann, 2014) that may affect the nurses' feelings of exhaustion and cynicism/depersonalisation (Bakker *et al.*, 2011).

The implications for HRM practitioners are that designing and implementing employee wellness programmes and practices would be beneficial for individual nurses and organisational performance. Periodic surveys can help to collect data on nurses' perceptions of their jobs and work environment. This will pinpoint factors contributing to burnout and negative work practices. Seminars can be held where nurses and managers can share best practices and suggest ways of improving the work environment and practices.

6.7.6 Research aim 8

Research aim 8: *To identify the nature of the statistical relationship between burnout and work engagement among nurses in the Khomas Region of Namibia.*

The results reveal that there was statistically significant negative relationship between total work engagement and total burnout. At sub-dimension level there was a statistically significant negative relationship between absorption, dedication and vigour in relation to emotional exhaustion and cynicism/depersonalisation, but a positive relationship with professional efficacy, which is in line with previous formative studies (Maslach & Leiter, 1997).

The results suggest that the more employees become absorbed in their work, the less they feel exhausted, and are less likely to feel cynical or depersonalised. The more they feel vigorous but frustrated by a lack of job resources, the more they are likely to feel exhausted and cynical or depersonalised. The more dedicated employees are,

the more exhausted they feel, and the more they are likely to develop feelings of cynicism or depersonalisation.

The findings of this study also indicated low levels of vigour for the data set. This may be as a result of a heavy workload and poor staffing (Ogunbamila, 2013; Thiam *et al.*, 2013). Vigour affects the individual's ability to self-regulate, negatively affects performance (Armon *et al.*, 2014) and sleep patterns (Armon *et al.*, 2014). Low vigour therefore accounts for poor performance and exhaustion as evidenced in this data set. Since nurses work in shifts, a heavy workload and poor staffing levels can contribute to low vigour in the performance of jobs.

HR practitioners can alleviate the strain by implementing performance evaluation systems that help to identify workload comparison with best practices, individuals who contribute effectively to set goals, and the tools required for effective performance. This will help them motivate for the recruitment of the required staff. It can also help identify tasks that can be done by less qualified para-professionals, releasing the professional nurses to do the more technical tasks.

6.7.7 Research aim 9

Research aim 9: *To test the mediating effect of burnout on the interaction between job/calling orientation and work engagement.*

The results reveal that burnout had a mediating effect on the interaction between job/calling orientation and work engagement. At sub-dimension level, the results showed a significant mediation effect in relation to professional efficacy and cynicism/depersonalisation but not for emotional exhaustion.

Job/calling had a significant path to each of the mediator variables of professional efficacy (0.0274) and cynicism/depersonalisation (0.0822), and each of the mediator variables of professional efficacy (0.0341) and cynicism/depersonalisation (0.0587) had significant paths to work engagement.

This may imply that when nurses have higher levels of professional efficacy and cynicism/depersonalisation, it affects the interaction between job/calling and work engagement, which can be high or low depending on the levels of the mediator (Allan & Duffy, 2014). This partially confirms Hypothesis 5.

6.7.8 Research aim 10

Research aim 10: *To test the moderating effect of selected demographic characteristics on the interactions between work calling orientation, work engagement and burnout.*

The results indicated that the relationship between job/calling and cynicism/ depersonalisation is moderated by age, and the relationship between job/calling and work engagement is moderated by length of service. The relationship between emotional exhaustion and work engagement is moderated by professional position, and the relationship between job/calling and cynicism/ depersonalisation is moderated by marital status. Additionally, the relationships between job/calling and cynicism/depersonalisation, emotional exhaustion and work engagement, and cynicism/ depersonalisation and work engagement are moderated by organisational type. This means that the study partially confirms the alternative hypothesis.

Generally, failing to reject the null hypothesis does not mean that the effect does not exist among the constructs and sub-dimensions. It rather means that in this data set there was insufficient evidence that the effect exists. Additionally, the effect may exist in the general population but not in this particular data set. Another possibility is that the effect does exist in the general population but the test did not detect it for a variety of reasons/ factors, such as sample size, high variability of data and random sampling that lead to the luck of the draw.

Table 6.28 addresses the research aims by providing a summary of the hypotheses formulated for the study and the relevant outcomes.

Table 6.28:
Summary of hypotheses and outcomes

Hypothesis	Description	Supportive outcome
H1 ₀	H1 ₀ =There are no significant differences in levels of work calling orientation, work engagement and burnout between groups of nurses in the Khomas Region of Namibia, as defined by selected demographic characteristics.	Rejected
H1 ₁	H1 ₁ =There are significant differences in levels of work calling orientation, work engagement and burnout between groups of nurses in the Khomas Region of	Partially supported by empirical evidence

Hypothesis	Description	Supportive outcome
	Namibia, as defined by selected demographic characteristics.	
H2₀	H2₀ =There is no significant linear relationship between levels of work calling orientation and work engagement among nurses in the Khomas Region of Namibia.	Rejected
H2₁	H2₁ =There is a significant positive linear relationship between levels of work calling orientation and work engagement among nurses in the Khomas Region of Namibia..	Supported by empirical evidence
H3₀	H3₀ =There is no significant linear relationship between levels of work calling orientation and burnout among nurses in the Khomas Region of Namibia.	Rejected
H3₁	H3₁ =There is a significant negative linear relationship between levels of work calling orientation and burnout among nurses in the Khomas Region of Namibia.	Supported by empirical evidence
H4₀	H4₀ =There is no significant linear relationship between levels of burnout and work engagement among nurses in the Khomas Region of Namibia.	Rejected
H4₁	H4₁ =There is a significant negative linear relationship between levels of burnout and work engagement among nurses in the Khomas Region of Namibia.	Supported by empirical evidence
H5₀	H5₀ =Burnout does not mediate the relationship between levels of work calling orientation and work engagement among nurses in the Khomas Region of Namibia.	Rejected
H5₁	H5₁ =Burnout mediates the relationship between levels of work calling orientation and work engagement among nurses in the Khomas Region of Namibia.	Partially supported by empirical evidence
H6₀	H6₀ =Selective demographic characteristics do not moderate the statistical relationship between work calling orientation, work engagement and burnout among nurses in the Khomas Region of Namibia.	Rejected
H6₁	H6₁ =Selective demographic characteristics moderate the statistical relationship between work calling orientation, work engagement and burnout among nurses in the Khomas Region of Namibia.	Partially supported by empirical evidence

This concludes the integration of the empirical results with the literature study.

6.8 SUMMARY OF CHAPTER 6

This chapter reported on and interpreted the findings of the empirical investigation into the nature of the statistical interrelationships between the work calling orientation (represented by calling, job and career orientation), work engagement (represented by vigour, dedication and absorption), burnout (represented by exhaustion, cynicism/depersonalisation and professional efficacy), and the overall relationships between groups of nurses, as defined by the demographic characteristics of a sample of respondents in the Khomas Region of Namibia. The results were discussed and displayed systematically in terms of descriptive analysis, testing of validity and reliability, correlation analysis, and inferential analysis.

CHAPTER 7: CONCLUSIONS, LIMITATIONS AND RECOMMENDATIONS

7.1 INTRODUCTION

This last chapter of the thesis presents the conclusions, limitations and recommendations for HRM practitioners, nurse managers, industrial psychologists and health care providers. The conclusions are based on the literature reviewed and the empirical findings of the study. The chapter also addresses the limitations of the literature review and the empirical findings. Finally, recommendations are presented regarding best practices for recruiting individuals with a calling to the nursing profession, and interventions that can be implemented to create a conducive work environment for employee engagement and the reduction of negative work outcomes, such as burnout.

7.2 CONCLUSIONS RELATING TO THE EMPIRICAL STUDY

The general aim of this study was to investigate the interrelationships between employees' perceptions of work calling orientation, the level of work engagement and the incidence of burnout among nurses in the Khomas Region of Namibia. Additionally, the study sought to explore the differences in the interaction of scores related to the three constructs across the demographic characteristics of nurses.

Conclusions were drawn about each of the specific aims of the empirical study, as follows.

7.2.1 Research aim 5

Research aim 5: *To investigate whether significant differences exist between groups of nurses in the Khomas Region of Namibia, as defined by selected demographic characteristics, in relation to work calling orientation, work engagement and burnout.*

The results of this study indicated that statistically significant differences exist between groups of nurses as defined by selected demographic characteristic in relation to job/calling orientation, work engagement and burnout among nurses in Khomas Region of Namibia. The specific results are discussed in 6.7.3 above and burnout was expounded on in Chapter 4, and the following conclusions were reached:

- According to the literature review, the influence of demographics on the three constructs of work calling orientation, work engagement and burnout was explained according to individual characteristics that influenced the scoring as age, position and education (Perrone-McGovern *et al.*, 2014; Shea-van-Fossen & Vredenburg, 2014; Thompson & Feldman, 2010). Schaufeli (2011) indicated a weak positive relationship with age and no systematic gender differences. Among academics, Bezuidenhout and Cilliers (2011) confirm that there is a positive relationship between being an older academic female and the manifestation of a sense of coherence, absorption and vigour (as sub-dimensions of work engagement). Heiden *et al.* (2013) found that age and physical job demands are positively correlated with negative nurse health outcomes, such as musculoskeletal disorders. Age-related decline of body functioning increases the likelihood of negative job-related outcomes, such as an inability to perform physically demanding tasks, which may lead to an early exit from the profession.
- Regarding age, Zaniboni *et al.* (2014) concluded that younger workers were more engaged when performing jobs with task variety, which may counteract boredom, than older workers were. Thus, older workers were less interested in the job aspects or domains perceived not to help them enhance the use of their resources, compensate and cope with those domains (Zaniboni *et al.*, 2014). Lian *et al.* (2014) found that a core self-evaluation on nurses' jobs indicate that burnout has a relatively positive effect on emotional exhaustion, lack of self-awareness (de-individuation), and lowered sense of personal achievement (Zhou *et al.*, 2014). Gleichgerricht and Decety (2013) established that women are more empathetic than men and that this may lead to higher emotional exhaustion. The inability to regulate individual negative arousal, and recognise and articulate negative emotions can result in compassion fatigue. This can be countered by acquiring skills in self-other awareness and helping or empathetic skills.
- Regarding work experience and nurse education levels, Perry *et al.* (2014) established that workers with more experience achieved progressively lower rates of adverse events and shorter procedure times than their less experienced colleagues. This is a result of task mastery, job fulfilment, improved work strategies and self-efficacy among employees. Higher nurse education and experience were

related to fewer negative work outcomes, such as patient falls, while lower experience was related to more patient falls and nurse ill health (Stalpers *et al.*, 2015). Higher education and experience among nurses are related to job mastery, having a calling in the profession, better quality of life and the competency to perform tasks more effectively.

7.2.2 Research aim 6

Research aim 6: *To identify the nature of the statistical relationship between the levels of job/calling orientation and work engagement among nurses in the Khomas Region of Namibia.*

The results indicated a positive relationship between job/calling orientation and work engagement and their sub-dimensions. Work calling orientation was portrayed as an individual's orientation related to work, which is associated with intrinsic motivation, self-determination, competency, relatedness and autonomy (Ryan & Deci, 2000), as expounded by the self-determination theory (SDT).

7.2.3 Research aim 7

Research aim 7: *To identify the nature of the statistical relationship between work calling orientation and burnout among nurses in the Khomas Region of Namibia.*

The results indicated a negative significant statistical relationship between job/calling and the burnout sub-dimensions of emotional exhaustion and cynicism/depersonalisation, but positive for professional efficacy.

7.2.4 Research aim 8

Research aim 8: *To identify the nature of the statistical relationship between burnout and work engagement among nurses in the Khomas Region of Namibia.*

The results indicated a negative significant statistical relationship between work engagement and burnout and its sub-dimensions, except for professional efficacy that was positive. The burnout antithesis approach defined work engagement as the opposite of burnout, as well as a distinctive, positive psychological state comprising of affective, cognitive and behavioural components (Maslach & Leiter, 1997). This approach expounds engagement as the positive and burnout as the negative of the same continuum.

7.2.5 Research aim 9

Research aim 9: *To test the mediating effect of burnout on the interaction between work calling orientation and work engagement.*

The results indicated the mediation effect of burnout on the interaction between job/calling and work engagement, as indicated in Section 6.7. Research aim 9 was achieved by testing the mediating effects of burnout on the interaction between job/calling orientation and work engagement.

The results of this study indicated that burnout had a significant mediating effect on the interactions between job/calling and work engagement. Specifically, exhaustion had no mediation effect on the interaction between job/calling and work engagement. However, a mediation effect was identified for professional efficacy and cynicism/depersonalisation.

7.2.6 Research aim 10

Research aim 10: *To test the moderating effect of selected demographic characteristics on the interactions between job/calling orientation, work engagement and burnout.*

The results of this study indicated that selected demographic characteristics had a partial moderating effect on the interaction between job/calling, work engagement and burnout, as indicated in Section 6.7.8. At sub-dimension level, some demographic characteristics moderated the relationship between job/calling, work engagement and burnout. Therefore, the last hypothesis is only partially accepted, with only a few of the relationships being moderated by demographic characteristics, and with no support for a fully moderated mediation.

This section concludes the achievement of the seven empirical research aims of the study in which work calling orientation was depicted as a positive construct related to meaningfulness, satisfaction and purpose. Work calling orientation was associated with work engagement, which is also a positive emotional state. On the contrary, burnout was illustrated as a negative outcome of work interaction that is contrary to work engagement and dissimilar to work calling orientation. Burnout occurs as a result of an imbalance in the job demands if compared to the job resources.

7.3 CONCLUSIONS REGARDING THEORETICAL RESULTS

The general aim of this study was to construct and test a model of the interrelationship between work calling orientation, work engagement and burnout with their corresponding sub-dimensions, and biographical characteristics. Conclusions were drawn about each of the specific aims of the empirical study and the related results, as follows.

7.3.1 Research aim 1

Research aim 1: *To theoretically conceptualise the constructs of work calling orientation, work engagement and burnout, and their respective sub-dimensions.*

- Theoretically, the relationship between total work calling orientation and total work engagement are positive, resulting from the fact that both constructs are positive, although differences were observed in the detailed analysis. At sub-dimension level, the total work engagement was found to be positively related to job/calling orientation and professional efficacy a sub-construct of burnout.

Considering the results indicated above, empirical Research aim 1 was achieved.

7.3.2 Research aim 2

Research aim 2: *To identify the nature of the theoretical relationship between work calling orientation, work engagement and burnout, and their respective sub-dimensions.*

As indicated, the construction of the items to test work calling orientation and work engagement was positive, therefore respondents who scored high in job/calling also scored high on work engagement and its respective sub-dimensions. Nurses may therefore continuously improve their performance, despite experiencing challenges. Over a period of time this may cause exhaustion and a depletion of job resources at individual level, and may ultimately result in burnout.

According to the findings provided above, Research aim 2 was achieved.

7.3.3 Research aim 3

Research aim 3: *To identify from the literature the moderating effect of demographic characteristics on the interactions between the constructs.*

Although job/calling is a positive sub-construct, burnout is negative, except for the items measuring professional efficacy. The interrelationship between total burnout and job/calling orientation is negative for the two sub-dimensions (professional efficacy and cynicism/depersonalisation).

In this study, the scoring of burnout and its sub-dimensions was negative in relation to job/calling's interaction with burnout. The scores for job/calling may indicate individuals being energised by the tasks they perform with passion, while the scoring of burnout may suggest that these nurses can avoid burnout if the job resources are equal to the job demands.

Considering the results presented above Research aim 3 was achieved.

This section presented the theoretical research aims of the study and detailed how they were achieved. Conclusions were drawn according to statistical evidence, depicting job/calling orientation as positively correlated to work engagement and negatively correlated to total burnout. At the sub-dimension level, job/calling orientation was positively correlated to vigour, dedication and absorption (sub-dimensions of work engagement) and professional efficacy (sub-dimension of burnout). The demographic characteristics partially mediated the relationship between job/calling orientation, work engagement and burnout and their respective sub-dimensions.

7.4 LIMITATIONS OF THE STUDY

Several limitations of the study relating to both the literature review and the empirical study are discussed below:

7.4.1 Limitations of the literature review

Several limitations regarding the literature review were encountered and are noted below:

- The methods/instruments/techniques used to collect the data were limited to the three constructs and sub-dimensions, thus restricting analysis.
- The novelty of the research instrument may have posed a challenge in interpretation and contextualising and answering questions honestly.

- Limited access to data: There was limited data available with regards to the interaction of the constructs of work calling orientation, work engagement and burnout in the Namibian context. There was also little previous research that had been done on health care professionals, and so the respondents may not have been free to participate for fear of victimisation. The researcher had to constantly assure participants of the non-disclosure of personal details and the level of confidentiality. It was difficult to access nurses who work in demanding units like Theatre and Intensive Care Units. Younger participants found it challenging to complete the questionnaire due to stress-provoking work demands. This was as a result of under-staffing and lack of resources to effectively perform their jobs.

Future researchers should find a way of including nurses with high demanding jobs like Theatre and Intensive Care Units nurses. It is important to demystify the notion that nurses are too busy to participate in research, even when it has to do with their well-being.

7.4.2 Limitations of the empirical study

The following limitations were encountered with regard to the empirical study:

- The sampling depended on the benevolence of nurses to participate in the study. In an environment of heavy workload and limited job resources, it was challenging to obtain a large number of participants. This may affect the degree of generalisation over the whole population of nurses in Namibia.
- A larger sample of respondents with nurses from both the cities, towns and rural countryside would be more representative.
- Most of the participants were older (>40 years), and it is also not clear as to whether the nurse population tends to be older in Namibia (accounting for the skewness of data collected) or that older nurses were more willing to participate in the study. Diversity in the age of participants may produce different results.

The results are therefore useful for future research on the relationship between work calling orientation, work engagement and burnout among nurses. The insights derived from the study have deepened the understanding of the work calling orientation, work

engagement and burnout among health care workers that can be used in the implementation of programmes that would improve work outcomes in Namibia.

7.5 RECOMMENDATIONS

To achieve the aims of this study, this section formulates recommendations for HRM practitioners, health care providers, health care institutions and nurse managers, as well as for further research by scholars. The recommendations are made on the basis of the literature findings, empirical results, conclusions and limitations of this research project.

Nursing and most health care professions demand the expression of physical, cognitive, emotional and mental involvement in job performance (Armon & Shirom, 2011; Shirom *et al.*, 2012). Nurses are continuously confronted by emotionally laden interactions with patients and their families, and their own emotional reaction to the suffering and death of patients (Görgens-Ekermans & Brand, 2013). The philosophy and style of management and leadership of employees in an organisation help optimise HRM systems.

Chou *et al.* (2012) described nurse job demands as including differing interactions with difficult patients, emotional labour, role conflict, role ambiguity, stressful events, heavy workload and work pressure. Van Bogaert *et al.* (2014) highlighted team practice environments, competing values framework, job complexity, role ambiguity, mental and physical workload, inadequate leadership, decision-making, and lack of control as components of job demands.

In summary, the categories of factors that affect nurse motivation and their ability to perform were: autonomy, work relationships, resource accessibility, nurse factors, and leadership practices.

7.5.1 Recommendations for HRM practice

Ensuring available, accessible, acceptable and high quality health care systems are directly impacted by the ability to train and sustain a healthy and supported workforce (Niles *et al.*, 2017). The literature suggests that work calling orientation and work

engagement were taken as indicators of performance. In other words, calling orientation and engagement are assumed to be wellness predictors of performance (Altunel *et al.*, 2015).

- Since calling orientation has been identified as an important attribute for nurse performance (Dobrow, 2013; Altunel *et al.*, 2015), it is therefore important to ensure that nurse training programmes assess for calling orientation when selecting candidates for training. For those already in the profession, HRM can create programmes to identify individual work calling and provide support in the training and development of individuals. Those identified as not called to the profession can be mentored to craft jobs for effective performance and to develop themselves in areas of strength, so that they can exit to work domains they feel called to. Reinforcement of the appropriate application of knowledge, skills and abilities gained from training needs to be provided by the organisation (Lather & Jain, 2015).
- The role of HRM is to create a work environment that enables employees from diverse background to become productive, creative and innovative. This maintains the quality of performance and customer care. In nursing, therefore, HRM best practices should be introduced to ensure quality of care and organisational competitiveness. All employees, and not only nurses, will be more efficient, productive and innovative when HRM practices are aligned to the organisation's objectives, business needs, as well as the culture necessary to sustain a competitive advantage in the market.
- The study also provides evidence that job resources are important for employee engagement (Bakker, 2011). The work environment can be improved by providing the necessary tools for job performance, and through the creation of self-managed teams to man the different operations. The creation of quality circles and quality teams can help in the identification and management of specific work-based challenges. An example of these challenges is found in shift operations in which organisations provide rotating shift operations where individuals would contribute to their preferred shifts and find support in case of challenges from supervisors and management.
- The practice of measuring levels of burnout among nurses could be utilised as a way of identifying and targeting staff who are at risk of developing burnout. They

could then be offered preventative interventions, especially when the impact of burnout cannot be reduced. One potential intervention is through the use of psychological formulation, because if nurses understand their patients they can then develop empathetic instead of sympathetic interactions.

- Nurse competencies can be nurtured and sustained through workplace practices like mentoring programmes and improved supervisory skills. Developing mentoring and positive supervisory relationships support the process of on-the-job training and sustaining a healthy and supported workforce. Hence, every unit should have a mentoring programme where senior and more experienced nurses mentor young and upcoming nurses on the performance and professional standards and procedures.
- The study indicated that burnout may result from decreased personal resources that include social support for individual employees. Better social support ensuring that employees perceive that they are cared for and belong to a supportive social network should be created. This includes practical support in performing work-related tasks and empathy in case of personal challenges. Organisational strategies should focus on nurse well-being as part of organisational goals.
- Nursing leadership behaviours were found to directly and indirectly influence nurses' motivations (Kodama & Fukahori, 2017). Nurse managers should be trained to have confidence in and empathise with the nurses under their supervision to enable them to achieve their work-related and personal goals. For effective management, individual nurse managers should be trained in the acquisition of both micro and macro viewpoints, respect for own beliefs, external standards, being proactive and to have empathy for their subordinates.
- Job resources can be enhanced through effective job designs. Job design should be done to achieve optimum productivity that ensures that nurse jobs provide for autonomy at job level, significance, feedback, satisfaction and security. This includes giving more job level autonomy (as one of the needs for self-determination), which means having the authority to make decisions and the freedom to act in accordance with one's professional knowledge at job level. Job significance can be enhanced by giving timely feedback on individual performance.

Satisfaction and security can be improved through work engagement activities, and having clearly understood career paths for all nurses.

- Policies and procedures should start with a positive philosophy and see the value of nurses as an important component in the achievement of organisational goals. Therefore, policies and procedures should be developed in collaboration with employees, and regularly monitored and reviewed to ensure strategic alignment (at individual and organisational level) that focus on meeting work-related needs.
- Performance management should be implemented to ensure the identification and rewarding of high performers and providing the support needed for performance improvement by those who struggle to perform. High performers should be recognised and compensated equitably. Compensation should also be structured to include market-relatedness and equity.
- Suggestions to reduce incidents of burnout include the use of psycho-educational programmes to be included in continuing professional development. This includes the promotion of positive attitudes, strengthening of patient-provider relationships and enhancing nurse well-being (Mudallal, Othman, & Al Hassan, 2017).
- The development of tools to effectively evaluate a calling orientation to differentiate it from job and career orientations. The questions should clearly articulate what the respondents understand as signs of the constructs in short and clear questions.
- Industrial psychologists should train and support professional nurses on the use of the tools, their implementation or changes and continuous improvement processes.
- Research on nurse-related issues can help to proactively identify and deal with challenges, and improve best practices in nursing management in Namibia.

7.5.2 Recommendations for nurse managers

The nature of nursing as a helping profession exerts emotional pressure on caregivers (Shirom *et al.*, 2012; Armon & Shirom, 2011). Effective professional practice requires individuals who create and use their own psychological resources. Kim and Park (2015) explain the need to create a work environment in which people from diverse backgrounds can perform effectively, without exposing employees to situations that produce the attitudes of employees' internal susceptibility or defencelessness as a result of continuous stress.

- The findings of this study indicated low levels of vigour contributing to exhaustion that may be as a result of heavy workload and poor staffing (Ogunbamila, 2013). The nurse managers should introduce interventions to screen the candidates' emotional psychological strength to align them with work values and requirements. This should be done when recruiting for nurse training, during job interviews and in the employee life cycle.
- Nurses with calling orientation are more engaged and more productive than those with job or career orientation. Therefore, the marketing of programmes in high schools should include discussions on the competencies required to become a good nurse, including calling orientation. Individuals can then choose to either join the profession or not, depending on their orientation.
- Since our education system does not focus on individual strengths and abilities, some individuals join the nursing profession for the money or because there is a demand for nurses or to ensure against unemployment. Recruiters for nurse training should require prospective candidates to participate in internship programmes to expose the prospective candidates to the nurse work life in a safe environment. This can be done during high school holidays or immediately after matric. That way, prospective student can have a clear view of what is expected from a good nurse, and therefore chose to join it or not.
- Calling orientation and engagement are essential attributes of a good nurse at all levels. Those nurses already in the profession should be empowered to make decisions at job level, and develop self-efficacy for continuous improvement. Individuals should also be mentored and encouraged to exit to other professions if they do not consider nursing as a calling.

- Those already in the profession may not be willing to exit the profession. Training programmes should be introduced for job crafting to improve performance in the individuals already in the profession. This is more cost-effective and realistic, taking into account the high unemployment level in Namibia.
- The results showed that professional efficacy affects nurse engagement and performance. Nurse Managers should create a clear career path for the junior staff to plan their lives and careers accordingly. This will enhance professional efficacy and motivate junior nurses to perform more effectively.

7.5.3 Recommendations for future research

Based on the conclusions and limitations, recommendations for further research in the field of human resources management are highlighted below.

- To improve on internal and external validity, future research efforts could use different and more recent tools, especially regarding work calling orientation.
- Obtaining a larger and more representative sample, could also improve on validity and the representation of different demographic variables and organisational representation
- There is a need for more research on employee calling orientation and engagement among nurses in Namibia. Further studies would be valuable for effective the management of nurses in the work life cycle, starting with recruitment, training and development, up to and including, the separation processes.

Such research would be valuable for nursing professionals, as well as for human resource practitioners, in improving employee retention strategies at an organisational and individual level.

7.6 EVALUATION OF THE RESEARCH CONTRIBUTION

This study contributed at three levels to the field of business and HRM, namely, at the theoretical, empirical and practical levels. The findings showed that a relationship exists between individual job/calling orientation, work engagement and burnout among nurses in Namibia. Individuals with a calling orientation to the nursing profession are more likely to be engaged in their work and less likely to suffer burnout. Additionally, burnout was found to partially mediate the interaction between job/calling orientation

and work engagement. These findings provide a better understanding of the factors that affect employee wellness and work-life balance practices, and add to the body of scientific knowledge.

7.6.1 Theoretical level value added

The findings of this study provide a better understanding of how individual work calling orientation, and work engagement are related to incidents of burnout among nurses in the Khomas Region of Namibia. The literature review highlighted the importance of considering the factors affecting the work calling orientation, work engagement and burnout constructs in the design of work systems and processes that are used in managing the nurse work life cycle.

The new insights generated from the literature review, specifically in terms of the moderation effect of demographic characteristics on the interrelationships between work calling orientation, work engagement and burnout, could be used in organisational HRM practices. Some examples of these practices include the recruitment of individuals with a calling orientation, training on job crafting, effective induction programmes, and training on job-specific competency skills. These practices will result in a more integrated nurse and more productive employee, which are essential for quality of nursing care. The exploration of the biographical characteristics of individuals and how these characteristics affect the interaction and manifestation of these constructs has been recognised as valuable in understanding groups of nurses and the effect on workplace behaviour and quality of nursing care.

It is recommended that these findings be used for recruitment, training, talent management and other HRM best practices to manage the employment life cycle. This is beneficial for employee well-being, productivity, quality of nursing care and the organisational performance context in Namibia.

7.6.2 Value added at a practical level

On a practical level, this study established that there are interrelationships between the psychological constructs of work calling orientation (represented by calling, job and career orientations), work engagement (represented by vigour, dedication and absorption) and burnout (exhaustion, cynicism/depersonalisation and professional efficacy), as experienced by nurses in the Khomas Region of Namibia. When HR

practitioners understand the interrelationships, interventions can be put in place to prevent negative work outcomes, such as burnout, and which ensure a positive work environment that results in employee well-being and the well-being of society at large. Consequently, employee well-being is directly related to better quality health care (Atinga, 2013; Bal & De Lange, 2015; Shea-van-Fossen & Vredenburg, 2014).

The positive outcomes of possible future research could include raising awareness about the fact that individuals in the workplace have different work callings, aligned to individual interests and abilities that affect their level of work engagement, and that can reduce the negative incidents of burnout, such as exhaustion and cynicism/depersonalisation.

It is important to consider individual calling orientation during recruitment for training and employment because these individuals are more likely to be engaged and more productive. Calling orientation and engagement affect employee performance and a positive work environment. This study also underscores the importance of assessments for the placement, training and mentoring for professional progression and professional efficacy and employee development.

Additionally, groups of nurses, as defined by age, educational qualifications, position held, and years of service differ in terms of their job/calling orientation, work engagement and incidence of burnout. Because of the changing characteristics of patients, rapid changes in technology and changing needs of employees, HRM practices can develop interventions to enhance a positive work environment, as well as improved employee performance, and creativity and innovation in the provision of health care services.

In conclusion, it is hoped that the findings of this study will provide valuable insight into how the interrelationship of the total constructs under study and at sub-dimension level will help HRM practitioners and professional nurse managers to implement systems and practices that enhance positive work environments and better employee functioning. Recommendations were also made for future research, and this study should be seen as a step towards making a positive contribution to the field of HRM and industrial and organisational psychology in the Namibian context.

7.7 REFLECTION ON DOCTORATENESS AND CONCLUSIONS

To conclude, the researcher is confident that the results of this study provide a better understanding of how the interrelationships between work calling orientation, burnout, and their respective sub-dimensions, and the demographic characteristics can be used by the various stakeholders in creating a positive work environment with engaged and productive employees. Calling orientation can also be used to recruit, train and maintain a motivated and creative cadre of professionals who continuously learn and improve performance.

The results of this study provide insight for HRM practitioners to create a work environment where individuals from diverse backgrounds can thrive and be productive. Factors contributing to calling orientation and work engagement explain how employees can prevent negative work outcomes, like burnout, in health care organisations. Organisations should ensure that they provide sufficient job resources for the effective performance of tasks. Job design can be used to ensure that jobs are motivating and satisfying to employees. It is expected that HRM practitioners and line managers, such as nurse managers, will use the new knowledge to improve the management of the employee life cycle. The research findings, conclusions and recommendations for future research should be viewed as a positive contribution to the field of HRM within the Namibian context.

At individual level, the researcher gained deeper insight into the constructs of work calling orientation, work engagement, burnout and their respective sub-dimensions in the context of the Khomas Region of Namibia. The researcher conceptualised these constructs at a theoretical and empirical level to determine the variables that impact on these constructs and their respective sub-dimensions among nurses in Namibia. The data treatment, analysis and statistical reporting were a learning curve for the researcher. From the data analyses and reporting, the researcher learned to look holistically at the bigger picture in the employee life cycle, especially for nurses.

The researcher also gained insight into critical thinking, stretching her imagination, and the articulation of concepts and ideas relating to work calling orientation, work engagement, burnout and the demographic characteristics. Other competencies gained include computer skills (graphics, layout, references, design and referencing)

and computer programs like SPSS and AMOS. The researcher learned patience, perseverance, collegiality and the ability to seek support when the going got tough.

7.8 SUMMARY OF CHAPTER 7

This chapter presented the conclusions and limitations of the study and made recommendations for HRM, nurse professional management practices and further research. The limitations were discussed with reference to the literature review and the empirical study. After the recommendations for future studies, a summary of the research was presented, highlighting the extent to which the results of the study provide support for the implementation of HRM practices to improve the work environment and individual nurse performance in the Khomas Region of Namibia.

Chapter 7 summarised the research aims, the formulation of research conclusions, outlined the research limitations and made recommendations for the discipline of Human Resources Management and professional nurse practices in Namibia, and presented suggestions for future research.

This concludes the final step in the research process and in the overall research project.

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APPENDIX A:

ETHICS CLEARANCE CERTIFICATE



DEPARTMENT OF HUMAN RESOURCE MANAGEMENT RESEARCH, ETHICS AND INNOVATION COMMITTEE

4 November 2015

Ref #: 2015_HRM_013

Name of applicant: L. Wambui

Student #: 55773753

Dear Ms Lydiah Wambui,

Decision: Ethics Approval

Name: Ms Lydiah Wambui, [55773753@mylife.unisa.ac.za, +264812558124]

Name of Supervisor: Prof A Bezuidenhout [bezuia@unisa.ac.za; 012 429 3941]

Proposal: Work as a calling, burnout and work engagement in the Namibian Health Care Sector

Qualification: D.Com Business Management (with specialisation in Human Resource Management)

Thank you for the application for research ethics clearance to the Department of Human Resource Management Research, Ethics and Innovation Committee for the above mentioned research. Final approval is granted for the duration of the project.

Full approval: The revised application was reviewed in compliance with the Unisa Policy on Research Ethics by the Department of Human Resource Management Research, Ethics and Innovation Committee on 4 November 2015 and full approval for the project is granted.

The proposed research may now commence with the proviso that:

- 1) The researcher/s will ensure that the research project adheres to the values and principles expressed in the UNISA Policy on Research Ethics.
- 2) Any adverse circumstance arising in the undertaking of the research project that is relevant to the ethicality of the study, as well as changes in the methodology, should be communicated in writing to the Department of Human Resource Management Research, Ethics and Innovation Committee. An amended application could be requested if there are substantial changes from the existing proposal, especially if those changes affect any of the study-related risks for the research participants.
- 3) The researcher will ensure that the research project adheres to any applicable national legislation, professional codes of conduct, institutional guidelines and scientific standards relevant to the specific field of study.



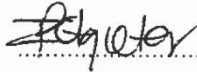
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Open Rubric

Note:

The reference number [top right corner of this communiqué] should be clearly indicated on all forms of communication [e.g. Webmail, E-mail messages, letters] with the intended research participants, as well as with the Department of Human Resource Management Research, Ethics and Innovation Committee.

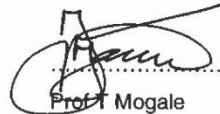
Kind regards,



Prof I Potgieter

Chairperson

012 429 3723 / visseil@unisa.ac.za



Prof F Mogale

Executive Dean

College of Economic and Management Sciences



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APPENDIX B:

TABLES FOR QUESTIONNAIRE SUMMARY

DEMOGRAPHICS

Personal Information																																				
Gender	Male				Female																															
Age	20 and below				21-30				31-40				41-50				51-60				61 and above															
Race / Ethnicity	Coloured				Black				White				Non-Namibian																							
Educational attainment	Certificate				Diploma - 2 yrs				Diploma - 3 yrs				Degree - 3 yrs				Degree - 4 yrs				B Degree Honours				Masters				Doctoral							
Work history in years	0-5				6-10				11-20				21-25				26-30				31-35				36-40				41-45				46 and above			
Type of organisation	Government								Private																											
Position (specify)	Enrolled nurse								Registered nurse								Nurse Manager																			
Marital status (specify)	Single				Married				Divorced				Widowed				Living together				Engaged/permanent relationship															

WORK CALLING ORIENTATION (WLQ by Wrzesnieski *et al.* 1997)

		Check one		Check one		
Statement		True	False	Job	Career	Calling
1	I find my work rewarding. (REWARD)					
2	I am eager to retire. (RETIRE)					
3	My work makes the world a better place. (BETTERWORLD)					
4	I am very conscious of what day of the work week it is and I greatly anticipate weekends. I say, "Thank God it's Friday!" (TGIF)					
5	I tend to take my work with me on vacations. (VACATION)					
6	I expect to be in a higher level job in five years. (HIGHERLEVEL)					
7	I would choose my current work life again if I had the opportunity. (CHOOSEAGAIN)					
8	I feel in control of my work life. (INCONTROL)					
9	I enjoy talking about my work to others. (TALKWORK)					
10	I view my job primarily as a stepping stone to other jobs. (STEPPINGSTONE)					
11	My primary reason for working is financial—to support my family and lifestyle. (FINANCIAL)					
12	I expect to be doing the same work in five years. (SAMEWORK)					
13	If I was financially secure, I would continue with my current line of work even if I was no longer paid. (STILLWORK)					
14	When I am not at work, I do not think much about my work. (THINKWORK)					

		Check one		Check one		
Statement		True	False	Job	Career	Calling
15	I view my job as just a necessity of life, much like breathing or sleeping. (NECESSITY)					
16	I never take work home with me. (TAKEHOME)					
17	My work is one of the most important things in my life. (WORKIMPORTANT)					
18	I would not encourage young people to pursue my kind of work. (NOTENCOURAGE)					

**UTRECHT WORK ENGAGEMENT SCALE/ QUESTIONNAIRE (UWES by
Schaufeli& Bakker 2003)**

		Never	A few times a year	Once a month or less	A few times a month	Once a week	A few times a week	Every day
1	At my work, I feel bursting with energy (VI1)							
2	I find the work that I do full of meaning and purpose (DE1)							
3	Time flies when I'm working (AB1)							
4	At my job, I feel strong and vigorous (VI2)							
5	I am enthusiastic about my job (DE2)							
6	When I am working, I forget everything else around me (AB2)							
7	My job inspires me (DE3)							
8	When I get up in the morning, I feel like going to work (VI3)							
9	I feel happy when I am working intensely (AB3)							
10	I am proud on the work that I do (DE4)							
11	I am immersed in my work (AB4)							
12	I can continue working for very long periods at a time (VI4)							

		Never	A few times a year	Once a month or less	A few times a month	Once a week	A few times a week	Every day
13	To me, my job is challenging (DE5)							
14	I get carried away when I'm working (AB5)							
15	At my job, I am very resilient, mentally (VI5)							
16	It is difficult to detach myself from my job (AB6)							
17	At my work I always persevere, even when things do not go well (VI6)							

APPENDIX C:

DECLARATION OF PROFESSIONAL EDIT



Retha Burger
B.A.(H.E.D.)

tel : 012 807 3864
cell : 083 653 5255

fax : 012 807 3864
e-mail : rethag@skillnet.co.za

Independent Skills Development Facilitator

Dear Ms Wambui

This letter is to record that I have completed a language edit of your PhD thesis entitled "INTERRELATIONSHIP BETWEEN WORK CALLING ORIENTATION, WORK ENGAGEMENT AND BURNOUT AMONG NURSES IN THE NAMIBIAN HEALTH CARE SECTOR".

The edit that I carried out included the following:

- Spelling
- Grammar
- Vocabulary
- Punctuation
- Pronoun matches
- Word usage
- Sentence structure
- Correct acronyms (matching your supplied list)
- Captions and labels for figures and tables
- Spot checking of 10 references

The edit that I carried out excluded the following:

- Content
- Correctness or truth of information (unless obvious)
- Correctness/spelling of specific technical terms and words (unless obvious)
- Correctness/spelling of unfamiliar names and proper nouns (unless obvious)
- Correctness of specific formulae or symbols, or illustrations.

Yours sincerely

Retha Burger

19 February 2020